



STIC Search Report

EIC 1700

STIC Database Tracking Number: 157900

TO: Ben Sackey
Location: REM 5B31
Art Unit : 1626
July 19, 2005

Case Serial Number: 10/618578

From: Kathleen Fuller
Location: EIC 1700
REMSSEN 4B28
Phone: 571/272-2505
Kathleen.Fuller@uspto.gov

Search Notes

This does not seem to be structurally searchable. The compounds indexed to the applicant are all manually indexed have no structures associated with the registry numbers I used the RN's and a text search for the attached.

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: BEN SACKET Examiner #: 73489 Date: 6/28/05
 Art Unit: 1626 Phone Number 302-0704 Serial Number: 10/618,578
 Mail Box and Bldg/Room Location: REM 5331 Results Format Preferred (circle): PAPER DISK E-MAIL

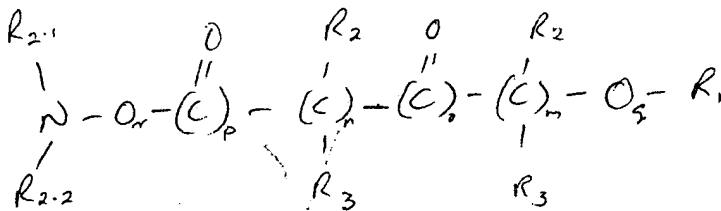
If more than one search is submitted, please prioritize searches in order of need.

Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Compounds for the modulation of the glycolysis enzyme order *transaminase complex*
 Inventors (please provide full names): Eigenbrodt et al.

Earliest Priority Filing Date: 09/11/02

For Sequence Searches Only Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.



STAFF USE ONLY

Searcher: K. Fuller Type of Search _____ Vendors and cost where applicable _____
 NA Sequence (#) _____ STN ✓
 Searcher Phone #: _____ AA Sequence (#) _____ Dialog _____
 Searcher Location: _____ Structure (#) 10 Questel/Orbit _____
 Date Searcher Picked Up: _____ Bibliographic _____ Dr. Link _____
 Date Completed: 7/19/05 Litigation _____ Lexis/Nexis _____
 Searcher Prep & Review Time: 40 Fulltext _____ Sequence Systems _____
 Clerical Prep Time: _____ Patent Family _____ WWW/Internet _____
 Online Time: 32 Other _____ Other (specify) _____

=> FILE HCAPLUS

FILE 'HCAPLUS' ENTERED AT 16:37:55 ON 19 JUL 2005

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FILE COVERS 1907 - 19 Jul 2005 VOL 143 ISS 4

FILE LAST UPDATED: 18 Jul 2005 (20050718/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> D ALL L49

L49 ANSWER 1 OF 1 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:218483 HCAPLUS

DN 140:252402

ED Entered STN: 19 Mar 2004

TI Glycolysis and/or transaminase complex modulators for the treatment of different diseases

IN Eigenbrodt, Erich; Scheefers, Hans; Mazurek, Sybille

PA ScheBo Biotech A.-G., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C07C239-22

ICS C07C261-02; C07C327-00

CC 16-2 (Fermentation and Bioindustrial Chemistry)

Section cross-reference(s): 1, 23

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10244080	A1	20040318	DE 2002-10244080	20020906
	CA 2498045	AA	20040325	CA 2003-2498045	20030707
	WO 2004024676	A1	20040325	WO 2003-DE2344	20030707
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1534666	A1	20050601	EP 2003-794769	20030707

applicant

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK

US 2004147587 A1 20040729 US 2003-618578 20030711 <--
PRAI DE 2002-10244080 A 20020906
DE 2002-10242445 A 20020911
DE 2002-10244299 A 20020923
WO 2003-DE2344 W 20030707

CLASS

PATENT NO.	CLASS	PATENT FAMILY CLASSIFICATION CODES
DE 10244080	ICM	C07C239-22
	ICS	C07C261-02; C07C327-00
DE 10244080	ECLA	C07D261/18
WO 2004024676	ECLA	C07D261/18
US 2004147587	NCL	514/417.000; 514/528.000; 514/506.000; 548/479.000; 558/232.000
	ECLA	C07D261/18

OS MARPAT 140:252402

AB The invention concerns compds. for the modulation glycolysis of enzyme complex and the transaminase complex, pharmaceutical compns. containing such compds. as well as uses from such compds. to the production from pharmaceutical compns. to the treatment of different diseases.

ST transaminase glycolysis enzyme modulator

IT Inflammation

(Crohn's disease, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Intestine, disease

(Crohn's, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Kidney, disease

(Goodpasture's syndrome, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Animal cell line

(MCF-7; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Animal cell line

(Novikoff-Hepatic; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Disease, animal

(adipose tissue, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Autoimmune disease

(autoimmune thrombocytopenia, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Autoimmune disease

Inflammation

Thyroid gland, disease

(autoimmune thyroiditis, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Infection

(bacterial, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Human

(cells and enzymes; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Arthritis

(chronic, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)

IT Cartilage, disease

(degeneration, use to treat; glycolysis and/or transaminase complex

- modulators for treatment of different diseases)
- IT Platelet (blood)
 - (disease, autoimmune thrombocytopenia, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Joint, anatomical
 - (disease, degeneration, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Adipose tissue
 - (disease, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Drugs
 - (glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Intestine, disease
 - (inflammatory, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Cell proliferation
 - (inhibition; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Drug delivery systems
 - (injections, i.v.; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Autoimmune disease
 - (insulin-dependent diabetes mellitus, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Diabetes mellitus
 - (insulin-dependent, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Disease, animal
 - (joint degeneration, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Glycolysis
 - (modulation of; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Drug delivery systems
 - (oral; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Arthritis
 - (polyarthritis, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Asthma
- Autoimmune disease
- Cachexia
- Connective tissue, disease
- Diabetes insipidus
- Multiple sclerosis
- Myasthenia gravis
- Psoriasis
- Sepsis
 - (use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT Eye, disease
- Inflammation
 - (uveitis, use to treat; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT 9031-66-7, Transaminase
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (complex; glycolysis and/or transaminase complex modulators for treatment of different diseases)
- IT 9000-97-9, Glutamate oxaloacetate transaminase 9001-47-2, Glutaminase

9001-59-6, Pyruvate kinase 9001-64-3, Malate dehydrogenase 9014-27-1,
Serine dehydratase 9015-68-3, Asparaginase 9026-51-1, Nucleotide
diphosphate kinase 9032-62-6, Phosphoglyceromutase 9067-84-9,
Deaminase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(glycolysis and/or transaminase complex modulators for treatment of
different diseases)

=> FILE REG

FILE 'REGISTRY' ENTERED AT 16:38:36 ON 19 JUL 2005

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STRUCTURE FILE UPDATES: 18 JUL 2005 HIGHEST RN 855828-45-4

DICTIONARY FILE UPDATES: 18 JUL 2005 HIGHEST RN 855828-45-4

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TSCA INFORMATION NOW CURRENT THROUGH JANUARY 18, 2005

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*
* The CA roles and document type information have been removed from *
* the IDE default display format and the ED field has been added, *
* effective March 20, 2005. A new display format, IDERL, is now *
* available and contains the CA role and document type information. *
*

Structure search iteration limits have been increased. See HELP SLIMITS
for details.

Experimental and calculated property data are now available. For more
information enter HELP PROP at an arrow prompt in the file or refer
to the file summary sheet on the web at:
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> D HIS L50

(FILE 'HCAPLUS, METADEX' ENTERED AT 15:56:33 ON 19 JUL 2005)
SEL RN

FILE 'REGISTRY' ENTERED AT 16:15:53 ON 19 JUL 2005
L50 10 S E1-E10

=> D L50 1-10

L50 ANSWER 1 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN
RN 9067-84-9 REGISTRY
ED Entered STN: 16 Nov 1984
CN Deaminase (9CI) (CA INDEX NAME)
MF Unspecified

*Registry numbers from
the applicant
no structures*

CI MAN

LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CEN, CHEMLIST, CIN, EMBASE, IFICDB, IFIPAT, IFIUDB, PROMT, TOXCENTER, USPAT2, USPATFULL

Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

253 REFERENCES IN FILE CA (1907 TO DATE)

1 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

253 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 2 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN

RN 9032-62-6 REGISTRY

ED Entered STN: 16 Nov 1984

CN Phosphomutase, glycerate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN Bisphosphoglyceromutase

CN Cofactor-independent phosphoglycerate mutase

CN Diphosphoglycerate mutase

CN Diphosphoglyceric mutase

CN Diphosphoglycomutase

CN E.C. 2.7.5.3

CN E.C. 5.4.2.1

CN Glycerate phosphomutase

CN Glycerate phosphomutase (diphosphoglycerate cofactor)

CN Monophosphoglycerate mutase

CN Monophosphoglyceromutase

CN Phosphoglycerate mutase

CN Phosphoglycerate phosphomutase

CN Phosphoglyceric acid mutase

CN Phosphoglyceromutase

DR 9023-91-0

MF Unspecified

CI MAN

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT, CHEMLIST, CSCHM, EMBASE, MSDS-OHS, NAPRALERT, TOXCENTER, USPAT2, USPATFULL

Other Sources: EINECS**, TSCA**

(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1155 REFERENCES IN FILE CA (1907 TO DATE)

18 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1158 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 3 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN

RN 9031-66-7 REGISTRY

ED Entered STN: 16 Nov 1984

CN Aminotransferase (9CI) (CA INDEX NAME)

OTHER NAMES:

CN α -Aminotransferase

CN α -Oxoglutaric acid transaminase

CN Glutamate aminotransferase

CN L-Amino acid aminotransferase

CN Transaminase

DR 9012-55-9

MF Unspecified
 CI COM, MAN
 LC STN Files: ADISNEWS, AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA,
 CAPLUS, CASREACT, CEN, CIN, CSNB, EMBASE, IFICDB, IFIPAT, IFIUDB,
 NAPRALERT, PROMT, TOXCENTER, USPAT2, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

2444 REFERENCES IN FILE CA (1907 TO DATE)
 7 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 2445 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 4 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 9026-51-1 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Kinase (phosphorylating), nucleoside diphosphate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN CDP kinase
 CN Diphosphonucleoside kinase
 CN E.C. 2.7.4.6
 CN Nucleoside 5'-diphosphate kinase
 CN Nucleoside diphosphate (UDP) kinase
 CN Nucleoside diphosphate kinase
 CN Nucleoside diphosphokinase
 CN Nucleotide diphosphate kinase
 CN UDP kinase
 CN Uridine diphosphate kinase

MF Unspecified

CI MAN

LC STN Files: AGRICOLA, ANABSTR, BIOSIS, BIOTECHNO, CA, CAPLUS, CASREACT,
 CHEMCATS, CHEMLIST, CSCHM, EMBASE, PROMT, TOXCENTER, USPAT2, USPATFULL
 Other Sources: EINECS**

(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1274 REFERENCES IN FILE CA (1907 TO DATE)
 25 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 1279 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 5 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 9015-68-3 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Asparaginase (8CI, 9CI) (CA INDEX NAME)

OTHER NAMES:

CN α -Asparaginase
 CN Colaspase
 CN Crasnitin
 CN Crisantaspase
 CN E.C. 3.5.1.1
 CN Elspar
 CN Erwinase
 CN Kidrolase
 CN L-Asnase
 CN L-Asparaginase
 CN L-Asparagine amidohydrolase
 CN Leunase
 CN MK 965
 CN NSC 109229

CN Oncospar
DR 9037-33-6, 9037-34-7, 9060-77-9
MF Unspecified
CI COM, MAN
LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
CA, CABA, CAPLUS, CASREACT, CBNB, CEN, CHEMCATS, CHEMLIST, CIN, CSCHEM,
DDFU, DIOGENES, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MRCK*,
NAPRALERT, NIOSHTIC, PHAR, PROMT, PS, RTECS*, TOXCENTER, USAN, USPAT2,
USPATFULL
(*File contains numerically searchable property data)
Other Sources: EINECS**
(**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

3134 REFERENCES IN FILE CA (1907 TO DATE)
200 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
3140 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 6 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN

RN 9014-27-1 REGISTRY

ED Entered STN: 16 Nov 1984

CN Dehydratase, L-serine (9CI) (CA INDEX NAME)

OTHER NAMES:

CN E.C. 4.2.1.13

CN L-Hydroxy amino acid dehydratase

CN L-Serine deaminase

CN L-Serine dehydratase

CN Serine deaminase

CN Serine dehydratase

DR 9014-28-2

MF Unspecified

CI MAN

LC STN Files: AGRICOLA, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS,
CIN, EMBASE, TOXCENTER, USPATFULL

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

670 REFERENCES IN FILE CA (1907 TO DATE)
4 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
670 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 7 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN

RN 9001-64-3 REGISTRY

ED Entered STN: 16 Nov 1984

CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 37,000-Mol.-wt. adrenergically induced proteins, pI 6.0

CN Adrenergically induced proteins, 37,000-mol.-wt., pI 6.0

CN AIP 37/6 proteins

CN E.C. 1.1.1.37

CN L-Malate dehydrogenase

CN Malate (NAD) dehydrogenase

CN Malate dehydrogenase

CN Malate dehydrogenase (NAD)

CN Malate dehydrogenase NAD-dependent

CN Malic acid dehydrogenase
 CN Malic dehydrogenase
 CN MDH
 CN NAD-dependent malate dehydrogenase
 CN NAD-dependent malic dehydrogenase
 CN NAD-L-malate dehydrogenase
 CN NAD-linked malate dehydrogenase
 CN NAD-malate dehydrogenase
 CN NAD-malic dehydrogenase
 CN NAD-specific malate dehydrogenase
 CN PI 6.0 adrenergically induced proteins, 37,000-mol.-wt.
 CN Proteins, adrenergically induced, 37,000-mol.-wt., pI 6.0
 CN Proteins, AIP 37/6
 CN Proteins, AIP 37/6 (adrenergically induced protein, 37,000-mol.-wt., pI 6.0)
 MF Unspecified
 CI MAN
 LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMLIST, CIN, CSCHM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
 Other Sources: EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

11319 REFERENCES IN FILE CA (1907 TO DATE)
 156 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 11327 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 8 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN
 RN 9001-59-6 REGISTRY
 ED Entered STN: 16 Nov 1984
 CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN E.C. 2.7.1.40
 CN Fluorokinase
 CN Kinase (phosphorylating), fluoro-
 CN Phosphoenolpyruvate kinase
 CN Pyruvate kinase
 CN pyruvate phosphotransferase (EC 2.7.1.40)
 CN Pyruvic kinase

MF Unspecified
 CI MAN

LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CEN, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN, CSCHM, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL

Other Sources: EINECS**, TSCA**
 (**Enter CHEMLIST File for up-to-date regulatory information)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

7341 REFERENCES IN FILE CA (1907 TO DATE)
 83 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 7350 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 9 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN

RN 9001-47-2 REGISTRY

ED Entered STN: 16 Nov 1984

CN Glutaminase (9CI) (CA INDEX NAME)

OTHER NAMES:

CN E.C. 3.5.1.2

CN Glutaminase C 100S

CN Glutaminase C 200

CN Glutaminase Daiwa C-100

CN Glutaminase Daiwa C100S

CN Glutaminase FP

CN Glutaminase I

CN Glutamine aminohydrolase

CN L-Glutaminase

CN L-Glutamine deaminase

CN Y 600S

MF Unspecified

CI COM, MAN

LC STN Files: AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO, CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CIN, CSCHEM, DDFU, DRUGU, EMBASE, IFICDB, IFIPAT, IFIUDB, MEDLINE, NAPRALERT, PROMT, RTECS*, TOXCENTER, USPAT2, USPATFULL

(*File contains numerically searchable property data)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1964 REFERENCES IN FILE CA (1907 TO DATE)

24 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA

1966 REFERENCES IN FILE CAPLUS (1907 TO DATE)

L50 ANSWER 10 OF 10 REGISTRY COPYRIGHT 2005 ACS on STN

RN 9000-97-9 REGISTRY

ED Entered STN: 16 Nov 1984

CN Aminotransferase, aspartate (9CI) (CA INDEX NAME)

OTHER NAMES:

CN 2-Oxoglutarate-glutamate aminotransferase

CN Aspartate α -ketoglutarate transaminase

CN Aspartate aminotransferase

CN Aspartate-2-oxoglutarate transaminase

CN Aspartic acid aminotransferase

CN Aspartic aminotransferase

CN Aspartyl aminotransferase

CN AST

CN E.C. 2.6.1.1

CN Glutamate 2-oxoglutarate transaminase

CN Glutamate-oxalacetate aminotransferase

CN Glutamate-oxalate transaminase

CN Glutamate-oxaloacetate transaminase

CN Glutamic-aspartic aminotransferase

CN Glutamic-aspartic transaminase

CN Glutamic-oxalacetic transaminase

CN Glutamic-oxalic transaminase

CN GOT

CN GOT (enzyme)

CN L-Aspartate aminotransferase

CN L-Aspartate transaminase

CN L-Aspartate- α -ketoglutarate transaminase

CN L-Aspartate-2-ketoglutarate aminotransferase
 CN L-Aspartate-2-oxoglutarate aminotransferase
 CN L-Aspartate-2-oxoglutarate-transaminase
 CN L-Aspartic aminotransferase
 CN Oxalacetate-aspartate aminotransferase
 CN Oxaloacetate transferase
 CN SGOT
 DR 9013-64-3, 9014-29-3, 9016-19-7, 9036-26-4, 9061-83-0, 61461-53-8,
 139074-52-5
 MF Unspecified
 CI MAN
 LC STN Files: ADISNEWS, AGRICOLA, ANABSTR, BIOBUSINESS, BIOSIS, BIOTECHNO,
 CA, CABA, CAPLUS, CASREACT, CBNB, CHEMCATS, CHEMINFORMRX, CHEMLIST, CIN,
 CSCHEM, CSNB, EMBASE, IFICDB, IFIPAT, IFIUDB, IPA, MEDLINE, MSDS-OHS,
 NAPRALERT, NIOSHTIC, PROMT, TOXCENTER, USPAT2, USPATFULL
 Other Sources: EINECS**, TSCA**
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PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

21950 REFERENCES IN FILE CA (1907 TO DATE)
 125 REFERENCES TO NON-SPECIFIC DERIVATIVES IN FILE CA
 21982 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> => FILE HCAPLUS

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 FILE LAST UPDATED: 18 Jul 2005 (20050718/ED)

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=> D QUE

L50 10 SEA FILE=REGISTRY ABB=ON (9000-97-9/BI OR 9001-47-2/BI OR
 9001-59-6/BI OR 9001-64-3/BI OR 9014-27-1/BI OR 9015-68-3/BI
 OR 9026-51-1/BI OR 9031-66-7/BI OR 9032-62-6/BI OR 9067-84-9/BI
)
 L54 133 SEA FILE=HCAPLUS ABB=ON MODULAT?(6A) (GLYCOLYSIS? OR TRANSAMINA
 SE?)
 L55 23 SEA FILE=HCAPLUS ABB=ON L54 AND PHARMAC?/SC,SX

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

L56 13 SEA FILE=HCAPLUS ABB=ON L54 AND THU/RL
 L57 25 SEA FILE=HCAPLUS ABB=ON L55 OR L56
 L59 47026 SEA FILE=HCAPLUS ABB=ON L50
 L61 27 SEA FILE=HCAPLUS ABB=ON L54 AND L59
 L62 11 SEA FILE=HCAPLUS ABB=ON L61 AND (THU/RL OR PHARMAC?/SC,SX)
 L63 25 SEA FILE=HCAPLUS ABB=ON L57 OR L62

=> D L63 BIB ABS IND HHITSTR 1-25
 'HHITSTR' IS NOT A VALID FORMAT FOR FILE 'HCAPLUS'

The following are valid formats:

ABS ----- GI and AB
 ALL ----- BIB, AB, IND, RE
 APPS ----- AI, PRAI
 BIB ----- AN, plus Bibliographic Data and PI table (default)
 CAN ----- List of CA abstract numbers without answer numbers
 CBIB ----- AN, plus Compressed Bibliographic Data
 DALL ----- ALL, delimited (end of each field identified)
 DMAX ----- MAX, delimited for post-processing
 FAM ----- AN, PI and PRAI in table, plus Patent Family data
 FBIB ----- AN, BIB, plus Patent FAM
 IND ----- Indexing data
 IPC ----- International Patent Classifications
 MAX ----- ALL, plus Patent FAM, RE
 PATS ----- PI, SO
 SAM ----- CC, SX, TI, ST, IT
 SCAN ----- CC, SX, TI, ST, IT (random display, no answer numbers;
 SCAN must be entered on the same line as the DISPLAY,
 e.g., D SCAN or DISPLAY SCAN)
 STD ----- BIB, IPC, and NCL

 IABS ----- ABS, indented with text labels
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 IBIB ----- BIB, indented with text labels
 IMAX ----- MAX, indented with text labels
 ISTD ----- STD, indented with text labels

 OBIB ----- AN, plus Bibliographic Data (original)
 OIBIB ----- OBIB, indented with text labels

 SBIB ----- BIB, no citations
 SIBIB ----- IBIB, no citations

 HIT ----- Fields containing hit terms
 HITIND ----- IC, ICA, ICI, NCL, CC and index field (ST and IT)
 containing hit terms
 HITRN ----- HIT RN and its text modification
 HITSTR ----- HIT RN, its text modification, its CA index name, and
 its structure diagram
 HITSEQ ----- HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
 PHITSTR ----- First HIT RN, its text modification, its CA index name, and
 its structure diagram
 PHITSEQ ----- First HIT RN, its text modification, its CA index name, its
 structure diagram, plus NTE and SEQ fields
 KWIC ----- Hit term plus 20 words on either side
 OCC ----- Number of occurrence of hit term and field in which it occurs

OCC ----- Number of occurrence of hit term and field in which it occurs

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ENTER DISPLAY FORMAT (BIB):END

=> D BIB ABS IND HITSTR 1-25

L63 ANSWER 1 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2005:523402 HCAPLUS

DN 143:60254

TI Preparation of compounds for **modulating the glycolysis** enzyme complex and/or the transaminase complex for treatment of disease

IN Scheefers, Hans

PA ScheBo-Biotech AG, Germany

SO PCT Int. Appl., 30 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2005054174	A2	20050616	WO 2004-DE2691	20041206
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10357301	A1	20050707	DE 2003-10357301	20031205

PRAI DE 2003-10357301 A 20031205

AB The invention relates to compds. for **modulating the glycolysis** enzyme complex and the **transaminase** complex, pharmaceutical compns. containing said compds., and to the uses of said compds. for the production of pharmaceutical compns. for the treatment of different illnesses. A discussion example gives the preparation of 5-oxyamino-2-aminopentanoic acid from 5-hydroxy-2-aminopentanoic acid (no data). Four figures present compds. typifying the claimed compds. (no data).

IC ICM C07C229-00

CC 34-3 (Amino Acids, Peptides, and Proteins)

Section cross-reference(s): 1, 33

ST **glycolysis** enzyme **modulator** prepn treatment disease

IT Inflammation

(Crohn's disease; preparation of compds. for **modulating the glycolysis** enzyme complex and/or the **transaminase** complex for treatment of disease)

- IT Intestine, disease
(Crohn's; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Kidney, disease
(Goodpasture's syndrome; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Autoimmune disease
(autoimmune thrombocytopenia; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Autoimmune disease
Inflammation
Thyroid gland, disease
(autoimmune thyroiditis; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Infection
(bacterial; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Infection
(chronic; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(deaminases; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Platelet (blood)
(disease, autoimmune thrombocytopenia; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Joint, anatomical
(disease, degeneration; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Heart, disease
(failure, chronic; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Heart, disease
(failure; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Intestine, disease
(inflammatory; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Autoimmune disease
(insulin-dependent diabetes mellitus; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Diabetes mellitus
(insulin-dependent; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Disease, animal

- (joint degeneration; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Peptides, biological studies
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (oligopeptides; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Arthritis
 (polyarthritis, chronic; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Acidosis
 Arthritis
 Asthma
 Autoimmune disease
 Cachexia
 Connective tissue, disease
 Diabetes insipidus
Glycolysis
 Multiple sclerosis
 Myasthenia gravis
 Neoplasm
 Osteoarthritis
 Psoriasis
 Rheumatic diseases
 Sepsis
 (preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Amino acids, reactions
 Hydroxylamines
 RL: RCT (Reactant); **THU (Therapeutic use)**; BIOL (Biological study); RACT (Reactant or reagent); USES (Uses)
 (preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Nucleosides, biological studies
 RL: **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT Tumor necrosis factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease from)
- IT Eye, disease
 Inflammation
 (uveitis; preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of disease)
- IT 9000-86-6, Glutamate pyruvate transaminase 9000-97-9
 9001-46-1, Glutamate dehydrogenase 9001-59-6, Pyruvate kinase
 9001-64-3, Malate dehydrogenase 9014-27-1
 9015-68-3, Asparaginase 9031-66-7, Transaminase
 9032-62-6, Phosphoglyceromutase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of compds. for **modulating** the **glycolysis** enzyme complex and/or the transaminase complex for treatment of

disease)
 IT 9000-97-9 9001-59-6, Pyruvate kinase 9001-64-3
 , Malate dehydrogenase 9014-27-1 9015-68-3,
 Asparaginase 9031-66-7, Transaminase 9032-62-6
 , Phosphoglyceromutase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (preparation of compds. for modulating the glycolysis
 enzyme complex and/or the transaminase complex for treatment of
 disease)

RN 9000-97-9 HCAPLUS
 CN Aminotransferase, aspartate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-59-6 HCAPLUS
 CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-64-3 HCAPLUS
 CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9014-27-1 HCAPLUS
 CN Dehydratase, L-serine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9015-68-3 HCAPLUS
 CN Asparaginase (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9031-66-7 HCAPLUS
 CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9032-62-6 HCAPLUS
 CN Phosphomutase, glycerate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 2 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:681711 HCAPLUS

DN 141:167780

TI Reagents that modulate the activity of TLR9 and methods and compositions
 for the prediction, diagnosis, prognosis, prevention and treatment of TLR9
 related diseases

IN Liu, Ningshu; Watanabe, Shinichi; Ni, Lin; Bacon, Kevin

PA Bayer Healthcare A.-G., Germany

SO PCT Int. Appl., 88 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004070344	A2	20040819	WO 2004-EP641	20040127
	W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AZ, AZ, BA, BB, BG,				
	BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR,				
	CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES,				
	ES, FI, FI, GB, GD, GE, GE, GH, GM, HR, HR, HU, HU, ID, IL, IN,				
	IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC,				
	LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX,				

MZ, MZ, NA, NI

RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE,
 BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU,
 MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN,
 GQ, GW, ML, MR, NE, SN, TD, TG, BF, BJ, CF, CG, CI, CM, GA, GN,
 GQ, GW, ML, MR, NE, SN, TD, TG

PRAI EP 2003-2183 A 20030204

EP 2003-21122 A 20030922

AB The effect of TLR-9 modulation can be detected by determining e.g., the amount
 of

T-bet mRNA or protein, STAT4 protein phosphorylation, p38 activities,
 IL-12 mRNA or protein, inhibition of TH2-related IgG1 and IgE switching,
 present in a tissue. The present invention relates to method for
 identifying or evaluating reagents that modulate the activity of TLR9
 using these members of the pathway such as T-bet, NF-B, IKK, STAT4, p38,
 IL-12 and Igs as markers. Reagents that modulate the activity of TLR9
 identified by the present method are useful in the manufacture of medicaments
 for the treatment of a range of diseases including cancer, autoimmune
 diseases, inflammatory diseases such as asthma or COPD, immunol. disorders
 and any other conditions involving aberrations of signal transduction.

IC ICM G01N

CC 1-7 (Pharmacology)

Section cross-reference(s): 9

ST TLR9 prognosis diagnosis autoimmune disease inflammation asthma COPD

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (BATF, PLAUR, ARHE, TACSTD1, LMO4, FNBP3, GNPAT1, B-cell BAP29, FIG1,
 CD74; reagents that modulate the activity of TLR9 and methods and
 compns. for prediction, diagnosis, prognosis, prevention and treatment
 of TLR9 related diseases)

IT Transcription factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (C/EBP- β (CCAAT box/enhancer element-binding protein β);
 reagents that modulate the activity of TLR9 and methods and compns. for
 prediction, diagnosis, prognosis, prevention and treatment of TLR9
 related diseases)

IT Transcription factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (C/EBP- δ (CCAAT box/enhancer element-binding protein δ);
 reagents that modulate the activity of TLR9 and methods and compns. for
 prediction, diagnosis, prognosis, prevention and treatment of TLR9
 related diseases)

IT Gene, animal

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (EGR2, mouse; reagents that modulate the activity of TLR9 and methods
 and compns. for prediction, diagnosis, prognosis, prevention and
 treatment of TLR9 related diseases)

IT Epidermal growth factor receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (ESP15; reagents that modulate the activity of TLR9 and methods and
 compns. for prediction, diagnosis, prognosis, prevention and treatment
 of TLR9 related diseases)

IT Transcription factors

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (ID2 (inhibitor of differentiation 2); reagents that modulate the
 activity of TLR9 and methods and compns. for prediction, diagnosis,
 prognosis, prevention and treatment of TLR9 related diseases)

IT Antibodies and Immunoglobulins

Immunoglobulin receptors

RL: BSU (Biological study, unclassified); BIOL (Biological study)

- (IgE; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Antibodies and Immunoglobulins
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (IgG1; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Antibodies and Immunoglobulins
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (IgG2a autoantibodies; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Proteins
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (MyD88 (myeloid differentiation primary response protein 88); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (NF- κ B (nuclear factor of κ light chain gene enhancer in B-cells); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (PML; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (STAT1 (signal transducer and activator of transcription 1); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (STAT4 (signal transducer and activator of transcription 4); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (STAT6 (signal transducer and activator of transcription 6); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (TBX21 (T-box 21); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Transcription factors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (TCF (T-cell factor), TCF2; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Receptors
 RL: BSU (Biological study, unclassified); BIOL (Biological study)

- (TLR-9 (Toll-like receptor-9); reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Lung, disease
(chronic obstructive; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT DNA
RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(conjugates with CpG; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Immunity
(disorder; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(nucleolar organizer-associated, NOP5/NOP58; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(p38; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Leukemia
(promyelocytic; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Anti-inflammatory agents
Antiasthmatics
Autoimmune disease
B cell (lymphocyte)
DNA microarray technology
Diagnosis
Inflammation
Signal transduction, biological
(reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Antibodies and Immunoglobulins
Interleukin 12
Interleukin 4
Polynucleotides
Transcription factors
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Enzymes, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(ubiquitin-activating, E1C; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)
- IT Interferons
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(γ ; reagents that modulate the activity of TLR9 and methods and compns. for prediction, diagnosis, prognosis, prevention and treatment of TLR9 related diseases)

of TLR9 related diseases)

IT 9014-36-2, GTP-specific succinyl-CoA synthetase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (beta subunit; reagents that modulate the activity of TLR9 and methods
 and compns. for prediction, diagnosis, prognosis, prevention and
 treatment of TLR9 related diseases)

IT 9000-97-9, Glutamate oxaloacetate **transaminase**
 159606-08-3, IKK kinase 362516-16-3, Conserved helix-loop-helix
 ubiquitous kinase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reagents that **modulate** the activity of TLR9 and methods and
 compns. for prediction, diagnosis, prognosis, prevention and treatment
 of TLR9 related diseases)

IT 2382-65-2D, conjugates with DNA
 RL: DMA (Drug mechanism of action); PAC (Pharmacological activity);
THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (reagents that modulate the activity of TLR9 and methods and compns.
 for prediction, diagnosis, prognosis, prevention and treatment of TLR9
 related diseases)

IT 9000-97-9, Glutamate oxaloacetate **transaminase**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (reagents that **modulate** the activity of TLR9 and methods and
 compns. for prediction, diagnosis, prognosis, prevention and treatment
 of TLR9 related diseases)

RN 9000-97-9 HCAPLUS
 CN Aminotransferase, aspartate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 3 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:620197 HCAPLUS

DN 141:179598

TI Antihyperlipidemic agent

IN Trifonova, O. Yu.; Khazanov, V. A.

PA Russia

SO Russ., No pp. given

CODEN: RUXXE7

DT Patent

LA Russian

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	RU 2228746	C1	20040520	RU 2002-131468	20021125
PRAI	RU 2002-131468		20021125		

AB The invention relates to antihyperlipidemic and antihyperproteinemic agents. The agent represents a combination of regulators of energetic metabolism, at least one represents succinic acid or its salt, either by combined using a known antihyperlipidemic agent in combination of some regulators of energetic metabolism or one taken in pharmacol. EDs. The invention provides an agent practically without adverse effects that can be used in treatment of atherosclerosis, ischemic heart disease and obesity.

IC ICM A61K031-194

ICS A61K031-191; A61K009-48; A61K009-22; A61P009-00

CC 63-6 (Pharmaceuticals)

ST hypolipemic antiatherosclerotic heart ischemia obesity

IT Antiarteriosclerotics

(antiatherosclerotics; antihyperlipidemic agent for treatment of
 atherosclerosis, cardiac ischemia, and obesity)

IT Antiobesity agents

Hypolipemic agents
 Obesity
 (antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT Drug delivery systems
 (capsules; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT Ischemia
 (cardiac; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT Heart, disease
 (ischemia; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT Drug delivery systems
 (tablets; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT 56-65-5, Atp, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT 56-86-0, Glutamic acid, biological studies 57-03-4, α
 Glycerophosphate 110-15-6, Succinic acid, biological studies 300-85-6,
 β Hydroxybutyric acid 320-77-4, Isocitric acid 328-50-7, α
 Ketoglutaric acid
 RL: PAC (Pharmacological activity); PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT 59-67-6, Nicotinic acid, biological studies 11041-12-6, Cholestyramine
 23288-49-5, Probucol 50925-79-6, Colestipol
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT 9028-35-7
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
 (inhibitors, statins; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT 9002-02-2, Succinate dehydrogenase 9031-66-7,
Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (modulators; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 IT 9031-66-7, **Transaminase**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (modulators; antihyperlipidemic agent for treatment of atherosclerosis, cardiac ischemia, and obesity)
 RN 9031-66-7 HCAPLUS
 CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 4 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:610042 HCAPLUS

DN 141:136207

TI Crystal structures of murine and human carnitine acyltransferases and

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

their uses in rational design of enzyme activity modulators
 IN Tong, Liang; Jogl, Gerwald
 PA The Trustees of Columbia University In the City of New York, USA
 SO PCT Int. Appl., 390 pp.
 CODEN: PIXXD2
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2004062581	A2	20040729	WO 2004-US170	20040106
	W: AE, AE, AG, AL, AL, AM, AM, AM, AT, AT, AU, AU, AZ, AZ, BA, BB, BG, BG, BR, BR, BW, BY, BY, BZ, BZ, CA, CH, CN, CN, CO, CO, CR, CR, CU, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EC, EE, EE, EG, ES, ES, FI, FI, GB, GD, GE, GE, GH, GH, GH, GM, HR, HR, HU, HU, ID, IL, IN, IS, JP, JP, KE, KE, KG, KG, KP, KP, KP, KR, KR, KZ, KZ, KZ, LC, LK, LR, LS, LS, LT, LU, LV, MA, MD, MD, MG, MK, MN, MW, MX, MX, MZ				
PRAI	US 2003-438172P	P	20030106		
AB	The present invention relates to structural models of carnitine acyltransferases, and, in particular, to models of the reactive sites of these enzymes. It is based, at least in part, on the x-ray crystallog. structures of murine carnitine acetyltransferase (mCRAT), both in pure form and in complex with its substrates carnitine and CoA. The structural information provides a basis for designing modulators of the activity of CRAT and related enzymes.				
IC	ICM A61K				
CC	7-5 (Enzymes)				
	Section cross-reference(s): 1, 75				
ST	crystal structure carnitine acetyltransferase drug design; acyltransferase carnitine crystal structure drug design				
IT	Enzyme functional sites (active; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)				
IT	Conformation Drug design Drug screening Human Molecular modeling Mus (crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)				
IT	Diabetes mellitus (design of drugs for; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)				
IT	Fatty acids, biological studies RL: BSU (Biological study, unclassified); BIOL (Biological study) (design of modulators of biosynthesis and oxidation of; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)				
IT	Glycolysis (design of modulators of; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)				
IT	Antidiabetic agents (design of; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)				

IT Crystal structure
Molecular structure, natural product
(of murine and human carnitine acyltransferases)

IT 727435-76-9
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(amino acid sequence; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)

IT 85-61-0D, Coenzyme A, complexes with carnitine acetyltransferase
541-15-1D, Carnitine, complexes with carnitine acetyltransferase
9029-90-7, Carnitine acetyltransferase 9029-90-7D, Carnitine acetyltransferase, complexes with carnitine or CoA 39386-49-7, Carnitine acyltransferase
RL: BUU (Biological use, unclassified); PRP (Properties); BIOL (Biological study); USES (Uses)
(crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)

IT 9004-10-8, Insulin, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(design of modulators of sensitivity to; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)

IT 727439-76-1 727439-77-2
RL: PRP (Properties)
(unclaimed sequence; crystal structures of murine and human carnitine acyltransferases and their uses in rational design of enzyme activity modulators)

L63 ANSWER 5 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2004:253146 HCAPLUS
DN 140:269647
TI Glycolysis and/or transaminase complex
modulators for the treatment of different diseases
IN Eigenbrodt, Erich; Scheefers, Hans; Mazurek, Sybille
PA Schebo Biotech Ag, Germany
SO PCT Int. Appl., 43 pp.
CODEN: PIXXD2
DT Patent
LA German
FAN.CNT 2

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2004024676	A1	20040325	WO 2003-DE2344	20030707
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG			
DE 10244080	A1	20040318	DE 2002-10244080	20020906
CA 2498045	AA	20040325	CA 2003-2498045	20030707
EP 1534666	A1	20050601	EP 2003-794769	20030707
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK			
PRAI DE 2002-10244080	A	20020906		

DE 2002-10242445 A 20020911
 DE 2002-10244299 A 20020923
 WO 2003-DE2344 W 20030707

OS MARPAT 140:269647

AB The invention concerns compds. for the **modulation glycolysis** of enzyme complex and the **transaminase** complex, pharmaceutical compns. containing such compds. as well as uses from such compds. to the production from pharmaceutical compns. to the treatment of different diseases.

IC ICM C07C255-23

ICS C07C239-20; C07D261-18; A61K031-275; A61K031-21; A61P035-00

CC 16-2 (Fermentation and Bioindustrial Chemistry)

Section cross-reference(s): 1, 23

ST **transaminase glycolysis enzyme modulator**

IT Inflammation

(Crohn's disease, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Intestine, disease

(Crohn's, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Kidney, disease

(Goodpasture's syndrome, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Animal cell line

(MCF-7; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Animal cell line

(Novikoff-Hepatic; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Disease, animal

(adipose tissue, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Autoimmune disease

(autoimmune thrombocytopenia, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Autoimmune disease

Inflammation

Thyroid gland, disease

(autoimmune thyroiditis, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Infection

(bacterial, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Human

(cells and enzymes; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Arthritis

(chronic, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

IT Cytoplasm

(cytosol; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)

- IT Cartilage, disease
(degeneration, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Platelet (blood)
(disease, autoimmune thrombocytopenia, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Joint, anatomical
(disease, degeneration, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Adipose tissue
(disease, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Antitumor agents
Drugs
Mitochondria
(**glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Intestine, disease
(inflammatory, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Cell proliferation
(inhibition; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Drug delivery systems
(injections, i.v.; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Autoimmune disease
(insulin-dependent diabetes mellitus, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Diabetes mellitus
(insulin-dependent, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Disease, animal
(joint degeneration, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT **Glycolysis**
(modulation of; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Drug delivery systems
(oral; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Arthritis
(polyarthritis, use to treat; **glycolysis** and/or **transaminase complex modulators** for treatment of different diseases)
- IT Asthma
Autoimmune disease
Cachexia
Connective tissue, disease
Diabetes insipidus
Multiple sclerosis

Myasthenia gravis

Psoriasis

Sepsis

(use to treat; **glycolysis** and/or **transaminase**
complex **modulators** for treatment of different diseases)

IT Eye, disease

Inflammation

(uveitis, use to treat; **glycolysis** and/or
transaminase complex **modulators** for treatment of
different diseases)

IT 9031-66-7, Aminotransferase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(complex; **glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

IT 645-88-5 7803-49-8, Hydroxylamine, biological studies 9000-86-6,
Glutamate pyruvate **transaminase** 9000-97-9, Glutamate
oxaloacetate **transaminase** 9001-47-2, Glutaminase
9001-59-6, Pyruvate kinase 9001-64-3, Malate
dehydrogenase 9014-27-1, Serine dehydratase 9015-68-3,
Asparaginase 9026-51-1, Nucleotide diphosphate kinase
9028-92-6, Glyceraldehyde-3-phosphate dehydrogenase 9029-12-3, Glutamate
dehydrogenase 9029-83-8, Serine hydroxymethyltransferase 9030-88-0
9030-89-1, Serine **transaminase** 9032-62-6,
Phosphoglyceromutase 9067-84-9, Deaminase 75706-12-6
108605-62-5

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

IT 9031-66-7, Aminotransferase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(complex; **glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

RN 9031-66-7 HCAPLUS

CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9000-97-9, Glutamate oxaloacetate **transaminase**
9001-47-2, Glutaminase 9001-59-6, Pyruvate kinase
9001-64-3, Malate dehydrogenase 9014-27-1, Serine
dehydratase 9015-68-3, Asparaginase 9026-51-1,
Nucleotide diphosphate kinase 9032-62-6, Phosphoglyceromutase
9067-84-9, Deaminase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(**glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

RN 9000-97-9 HCAPLUS

CN Aminotransferase, aspartate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-47-2 HCAPLUS

CN Glutaminase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-59-6 HCAPLUS

CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-64-3 HCAPLUS

CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9014-27-1 HCAPLUS

CN Dehydratase, L-serine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9015-68-3 HCAPLUS

CN Asparaginase (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9026-51-1 HCAPLUS

CN Kinase (phosphorylating), nucleoside diphosphate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9032-62-6 HCAPLUS

CN Phosphomutase, glycerate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9067-84-9 HCAPLUS

CN Deaminase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 6 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2004:218483 HCAPLUS

DN 140:252402

TI Glycolysis and/or transaminase complex

modulators for the treatment of different diseases

IN Eigenbrodt, Erich; Scheefers, Hans; Mazurek, Sybille

PA ScheBo Biotech A.-G., Germany

SO Ger. Offen., 8 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE	
PI	DE 10244080	A1	20040318	DE 2002-10244080	20020906	
	CA 2498045	AA	20040325	CA 2003-2498045	20030707	
	WO 2004024676	A1	20040325	WO 2003-DE2344	20030707	
	W:			AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW		
	RW:			GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG		
	EP 1534666	A1	20050601	EP 2003-794769	20030707	
	R:			AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK		
	US 2004147587	A1	20040729	US 2003-618578	20030711	
PRAI	DE 2002-10244080	A	20020906			
	DE 2002-10242445	A	20020911			
	DE 2002-10244299	A	20020923			
	WO 2003-DE2344	W	20030707			
OS	MARPAT 140:252402					

- AB The invention concerns compds. for the **modulation glycolysis** of enzyme complex and the **transaminase** complex, pharmaceutical compns. containing such compds. as well as uses from such compds. to the production from pharmaceutical compns. to the treatment of different diseases.
- IC ICM C07C239-22
ICS C07C261-02; C07C327-00
- CC 16-2 (Fermentation and Bioindustrial Chemistry)
Section cross-reference(s): 1, 23
- ST **transaminase glycolysis enzyme modulator**
- IT Inflammation
(Crohn's disease, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Intestine, disease
(Crohn's, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Kidney, disease
(Goodpasture's syndrome, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Animal cell line
(MCF-7; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Animal cell line
(Novikoff-Hepatic; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Disease, animal
(adipose tissue, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Autoimmune disease
(autoimmune thrombocytopenia, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Autoimmune disease
Inflammation
Thyroid gland, disease
(autoimmune thyroiditis, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Infection
(bacterial, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Human
(cells and enzymes; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Arthritis
(chronic, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Cartilage, disease
(degeneration, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Platelet (blood)
(disease, autoimmune thrombocytopenia, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for

- treatment of different diseases)
- IT Joint, anatomical
 - (disease, degeneration, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Adipose tissue
 - (disease, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Drugs
 - (**glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Intestine, disease
 - (inflammatory, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Cell proliferation
 - (inhibition; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Drug delivery systems
 - (injections, i.v.; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Autoimmune disease
 - (insulin-dependent diabetes mellitus, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Diabetes mellitus
 - (insulin-dependent, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Disease, animal
 - (joint degeneration, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT **Glycolysis**
 - (modulation of; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Drug delivery systems
 - (oral; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Arthritis
 - (polyarthritis, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Asthma
 - Autoimmune disease
 - Cachexia
 - Connective tissue, disease
 - Diabetes insipidus
 - Multiple sclerosis
 - Myasthenia gravis
 - Psoriasis
 - Sepsis
 - (use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of different diseases)
- IT Eye, disease
 - Inflammation
 - (uveitis, use to treat; **glycolysis** and/or **transaminase** complex **modulators** for treatment of

different diseases)

IT 9031-66-7, **Transaminase**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (complex; **glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

IT 9000-97-9, Glutamate oxaloacetate **transaminase**
 9001-47-2, Glutaminase 9001-59-6, Pyruvate kinase
 9001-64-3, Malate dehydrogenase 9014-27-1, Serine
 dehydratase 9015-68-3, Asparaginase 9026-51-1,
 Nucleotide diphosphate kinase 9032-62-6, Phosphoglyceromutase
 9067-84-9, Deaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (**glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

IT 9031-66-7, **Transaminase**
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (complex; **glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

RN 9031-66-7 HCAPLUS
 CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9000-97-9, Glutamate oxaloacetate **transaminase**
 9001-47-2, Glutaminase 9001-59-6, Pyruvate kinase
 9001-64-3, Malate dehydrogenase 9014-27-1, Serine
 dehydratase 9015-68-3, Asparaginase 9026-51-1,
 Nucleotide diphosphate kinase 9032-62-6, Phosphoglyceromutase
 9067-84-9, Deaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (**glycolysis** and/or **transaminase** complex
modulators for treatment of different diseases)

RN 9000-97-9 HCAPLUS
 CN Aminotransferase, aspartate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-47-2 HCAPLUS
 CN Glutaminase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-59-6 HCAPLUS
 CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9001-64-3 HCAPLUS
 CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9014-27-1 HCAPLUS
 CN Dehydratase, L-serine (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9015-68-3 HCAPLUS
 CN Asparaginase (8CI, 9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9026-51-1 HCAPLUS
 CN Kinase (phosphorylating), nucleoside diphosphate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9032-62-6 HCAPLUS

CN Phosphomutase, glycerate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9067-84-9 HCAPLUS

CN Deaminase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 7 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STM

AN 2004:3583 HCAPLUS

DN 140:71036

TI Modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof

IN Monia, Brett P.; Bennett, C. Frank; Baker, Brenda F.; Vickers, Timothy
PA USA

SO U.S. Pat. Appl. Publ., 54 pp., Cont.-in-part of U.S. Ser. No. 878,582, abandoned.

CODEN: USXXCO

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004002153	A1	20040101	US 2003-336213	20030103
	US 6020199	A	20000201	US 1999-358381	19990721
	WO 2001007457	A1	20010201	WO 1999-US29594	19991214
	W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
	US 6284538	B1	20010904	US 2000-577902	20000524
	US 2002058638	A1	20020516	US 2001-878582	20010611
	WO 2004027030	A2	20040401	WO 2003-US29294	20030918
	WO 2004027030	A3	20050113		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	US 2004137471	A1	20040715	US 2003-664639	20030918
	EP 1546344	A2	20050629	EP 2003-755836	20030918
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	WO 2004063329	A2	20040729	WO 2003-US41492	20031230
	WO 2004063329	A3	20050428		
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO,				

NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ,
 TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ,
 BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE,
 ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK,
 TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRAI US 1999-358381 A1 19990721
 WO 1999-US29594 A2 19991214
 US 2000-577902 A1 20000524
 US 2001-878582 B2 20010611
 US 2002-411780P P 20020918
 US 2003-336213 A 20030103
 WO 2003-US29294 W 20030918

AB Oligomeric compds., compns. and methods are provided for modulating the expression of dual-specificity protein phosphatase PTEN. The compns. comprise oligomeric compds., particularly double stranded oligomeric compds., targeted to nucleic acids encoding PTEN. Specifically, a series of 18-nucleotide, phosphorothioate-linked oligonucleotides targeting the 5'-UTR, the coding region, or the 3'-UTR of dual-specificity protein phosphatase PTEN mRNA were synthesized. In transfected mammalian cells, 30 of 40 phosphorothioate-linked antisense oligonucleotides demonstrated at least 30% inhibition of PTEN gene expression. In addition, enhanced gene expression inhibition is observed from 18-nucleotide chimeric oligonucleotides derived from above phosphorothioate-linked antisense oligonucleotides, which is composed of a central gap region consisting of ten 2'-deoxynucleotides, which is flanked on both sides (5' and 3' directions) by four-nucleotide wings containing 2'-methoxyethyl (2'-MOE)nucleotides. Furthermore, a series of 21 nucleotide dsRNAs, formed by two oligonucleotides designed to contain the above 18 nucleobase oligonucleotides with one addnl. complementary base on the 3' end of the oligoribonucleotides followed by a two-nucleobase overhang of deoxythymidine (T), TT, also show PTEN inhibitory effect. A comparison of the inhibition of PTEN expression by single stranded oligonucleotides vs. double stranded RNA (dsRNA) is provided. Methods of using these compds. for modulation of PTEN expression and for treatment of diseases and conditions associated with expression of PTEN are provided. Such conditions include diabetes and hyperproliferative conditions. Methods for decreasing blood glucose levels, inhibiting PEPCK expression, decreasing blood insulin levels, decreasing insulin resistance, increasing insulin sensitivity, decreasing blood triglyceride levels or decreasing blood cholesterol levels in an animal, among others, using the compds. of the invention are also provided. The animal is preferably a human; also preferably the animal is a diabetic animal.

IC ICM A61K048-00

ICS C07H021-04; C12N005-00

INCL 435375000; 514044000; 536023200

CC 1-10 (Pharmacology)

Section cross-reference(s): 3, 7, 63

ST antisense oligonucleotide dual specificity protein phosphatase PTEN inhibition therapy; dsRNA dual specificity protein phosphatase PTEN inhibition therapy

IT Genetic element

RL: BUU (Biological use, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(5'-untranslated region, of PTEN gene, antisense oligonucleotide or dsRNA targeted to; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT Diabetes mellitus

(PTEN inhibition for the treatment of; modulation of dual-specificity

protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

- IT Adipose tissue
 - Human
 - Kidney
 - Liver
 - Mus
 - Rodentia
 - (PTEN inhibition in; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Gene, animal
 - RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (PTEN; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Glycerides, analysis
 - RL: ANT (Analyte); ANST (Analytical study)
 - (blood, PTEN inhibition for the treatment of; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Drug delivery systems
 - (carriers, colloidal dispersion system; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Mutation
 - (deletion, PTEN dsRNA containing; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Metabolism, animal
 - (disorder, PTEN inhibition for the treatment of; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Body weight
 - (effect of PTEN inhibition on; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Genetic element
 - RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (exon, of PTEN gene, antisense oligonucleotide or dsRNA targeted to; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Genetic vectors
 - (for PTEN dsRNA expression; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT cDNA sequences
 - (for human PTEN; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Post-transcriptional processing
 - (interference; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Genetic element
 - RL: BUU (Biological use, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

- (intron, of PTEN gene, antisense oligonucleotide or dsRNA targeted to; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Genetic element
 RL: BUU (Biological use, unclassified); **THU (Therapeutic use)**;
 BIOL (Biological study); USES (Uses)
 (intron/exon boundary, of PTEN gene, antisense oligonucleotide or dsRNA targeted to; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Antidiabetic agents
 Blood analysis
 Disease models
 Drug delivery systems
 Human
 Rattus
 (modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Antisense oligonucleotides
 Phosphorothioate oligonucleotides
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study);
 PREP (Preparation); USES (Uses)
 (modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Diabetes mellitus
 (non-insulin-dependent, PTEN inhibition for the treatment of; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Protein sequences
 (of human PTEN; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Double stranded RNA
 RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); **THU (Therapeutic use)**; BIOL (Biological study);
 PREP (Preparation); USES (Uses)
 (small interfering, effect of PTEN inhibition on; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Mutation
 (substitution, PTEN dsRNA containing; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT Kidney
 Liver
 (toxicity, PTEN inhibition in; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)
- IT 256631-53-5P, ISIS 29576 256631-55-7P, ISIS 29578 256631-59-1P, ISIS 29582 256631-60-4P, ISIS 29583 256631-61-5P, ISIS 29584 256631-62-6P, ISIS 29585 256631-64-8P, ISIS 29587 256631-65-9P, ISIS 29588 256631-66-0P, ISIS 29589 256631-68-2P, ISIS 29591 256631-69-3P, ISIS 29592 256631-70-6P, ISIS 29593 256631-74-0P, ISIS 29597 256631-79-5P, ISIS 29602 256631-80-8P, ISIS 29603 256631-81-9P, ISIS 29604 256631-85-3P, ISIS 29608 256631-87-5P, ISIS

29610 256631-90-0P, ISIS 29613 256917-02-9P, ISIS 29535
 256917-03-0P, ISIS 29536 256917-04-1P, ISIS 29537 256917-05-2P, ISIS
 29538 256917-06-3P, ISIS 29539 256917-07-4P, ISIS 29540
 256917-08-5P, ISIS 29541 256917-09-6P, ISIS 29542 256917-10-9P, ISIS
 29543 256917-11-0P, ISIS 29544 256917-13-2P, ISIS 29546
 256917-18-7P, ISIS 29551 256917-19-8P, ISIS 29552 256917-20-1P, ISIS
 29553 256917-21-2P, ISIS 29554 256917-22-3P, ISIS 29555
 256917-23-4P, ISIS 29556 256917-24-5P, ISIS 29557 256917-26-7P, ISIS
 29559 256917-27-8P, ISIS 29560 256917-28-9P, ISIS 29561
 256917-29-0P, ISIS 29562 256917-31-4P, ISIS 29564 256917-33-6P, ISIS
 29566 256917-34-7P, ISIS 29567 256917-36-9P, ISIS 29569
 256917-38-1P, ISIS 29571 256917-39-2P, ISIS 29572 256917-40-5P, ISIS
 29573 357676-42-7P, ISIS 116847 357676-43-8P, ISIS 116845
 634221-35-5P, ISIS 29581 634221-36-6P, ISIS 29590 640308-09-4P, ISIS
 29534 640804-85-9P, ISIS 29545 640804-86-0P, ISIS 29547
 640804-87-1P, ISIS 29548 640804-88-2P, ISIS 29549 640804-89-3P, ISIS
 29568 640804-90-6P, ISIS 29570

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);

PREP (Preparation); USES (Uses)

(PTEN antisense or dsRNA formation oligonucleotide; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 50-99-7, D-Glucose, analysis

RL: ANT (Analyte); ANST (Analytical study)

(blood, effect of PTEN inhibition on; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 9000-86-6, Alanine transaminase 9000-97-9, AST

37341-55-2, Phosphoenolpyruvatecarboxykinase

RL: ANT (Analyte); ANST (Analytical study)

(effect of PTEN inhibition on; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 149885-84-7, Dual-specificity protein phosphatase

RL: BSU (Biological study, unclassified); THU (Therapeutic use);

BIOL (Biological study); USES (Uses)

(gene PTEN; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 391836-77-4, GenBank U92436 391836-79-6, GenBank U93051

RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)

(modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 640804-83-7 640804-84-8

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(nucleotide sequence; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 57-88-5, Cholest-5-en-3-ol (3 β)-, analysis 9004-10-8, Insulin, analysis

RL: ANT (Analyte); ANST (Analytical study)

(serum, effect of PTEN inhibition on; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 640806-64-0 640806-65-1 640806-66-2 640806-67-3 640806-68-4

640806-69-5 640806-70-8 640806-71-9 640806-72-0 640806-73-1

640806-74-2	640806-75-3	640806-76-4	640806-77-5	640806-78-6
640806-79-7	640806-80-0	640806-81-1	640806-82-2	640806-83-3
640806-84-4	640806-85-5	640806-86-6	640806-87-7	640806-88-8
640806-89-9	640813-29-2	640813-30-5	640813-31-6	640813-32-7
640813-33-8	640813-34-9	640813-35-0	640813-36-1	640813-37-2
640813-38-3	640813-39-4	640813-40-7	640813-41-8	640813-42-9
640813-43-0	640813-44-1	640813-45-2	640813-46-3	640813-47-4
640813-48-5	640813-49-6	640813-50-9	640813-51-0	640813-52-1
640813-53-2	640813-54-3	640813-55-4	640813-56-5	640813-57-6
640813-58-7	640813-59-8	640813-60-1	640813-61-2	640813-62-3
640813-63-4	640813-64-5	640813-65-6	640813-66-7	640813-67-8
640813-68-9	640813-69-0	640813-70-3	640813-71-4	640813-72-5
640813-73-6	640813-74-7	640813-75-8	640813-76-9	640813-77-0
640813-78-1	640813-79-2	640813-80-5	640813-81-6	640813-82-7
640813-83-8	640813-84-9	640813-85-0	640813-86-1	641650-92-2

RL: PRP (Properties)

(unclaimed nucleotide sequence; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

IT 9000-97-9, AST

RL: ANT (Analyte); ANST (Analytical study)

(effect of PTEN inhibition on; modulation of dual-specificity protein phosphatase PTEN expression via antisense oligonucleotides and double-stranded RNAs and therapeutic use thereof)

RN 9000-97-9 HCAPLUS

CN Aminotransferase, aspartate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 8 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:142269 HCAPLUS

DN 139:80419

TI Modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes. II. Aromatic aldehydes

AU Niknahad, Hossein; Shuhendler, Adam; Galati, Giuseppe; Siraki, Arno G.; Easson, Elaine; Poon, Raymond; O'Brien, Peter J.

CS Department of Pharmacology and Toxicology, Faculty of Pharmacy, Shiraz University of Medical Sciences, Shiraz, 71345, Iran

SO Chemico-Biological Interactions (2003), 143-144, 119-128

CODEN: CBINA8; ISSN: 0009-2797

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

AB The mol. cytotoxic mechanisms of dietary benzaldehydes towards hepatocytes and its modulation by metabolizing enzymes were compared. Salicylaldehyde was found to be the most cytotoxic followed by cinnamaldehyde and both rapidly depleted some glutathione before an inhibition of respiration occurred, which preceded cell lysis. Reactive oxygen species were formed, but lipid peroxidn. was induced with cinnamaldehyde, but not salicylaldehyde. Glutathione depleted hepatocytes were more susceptible to cytotoxicity. Mitochondrial toxicity and cytotoxicity were prevented by glycolytic substrates (e.g. fructose), citric acid cycle substrates (e.g. glutamine) or cyclosporin, the mitochondrial permeability transition inhibitor. Inhibition of mitochondrial ALDH with chloral hydrate, crotonaldehyde or citral or decreasing mitochondrial NAD⁺ with rotenone increased cinnamaldehyde induced cytotoxicity with a much smaller effect on salicylaldehyde induced cytotoxicity. Cyanamide was the most effective ALDH inhibitor for increasing cinnamaldehyde induced cytotoxicity, presumably because cyanamide also inhibits microsomal ALDH. Although cinnamaldehyde was a better substrate than salicylaldehyde for ADH1,

cytosolic NADH generators (e.g. xylitol) prevented salicylaldehyde and cinnamaldehyde cytotoxicity similarly. This could be explained as salicylaldehyde was not a substrate for the ALDHs and would then be more dependent on ADH for detoxification.

- CC 4-3 (Toxicology)
- ST carbonyl cytotoxicity rat hepatocyte metabolizing enzyme arom aldehyde
- IT Aldehydes, biological studies
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (aromatic; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Redox reaction
 - (biochem.; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Detoxification
 - (biol.; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Enzymes, biological studies
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (carbonyl-metabolizing; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Cytoplasm
 - (cytosol; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Liver
 - (hepatocyte; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Peroxidation
 - (lipid; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Cytolysis
- Cytotoxicity
- Glycolysis
- Hepatotoxicity
- Liver
- Microsome
- Mitochondria
- Oxidative stress, biological
- Rattus
- Respiration, animal
- Tricarboxylic acid cycle
 - (modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Carbonyl complexes
 - Reactive oxygen species
 - RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
 - (modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Biological transport
 - (permeation; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT Liver
 - (toxicity; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT 9028-86-8, Aldehyde dehydrogenase
 - RL: BSU (Biological study, unclassified); BIOL (Biological study)
 - (mitochondrial; modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)
- IT 90-02-8, Salicylaldehyde, biological studies 100-52-7, Benzaldehyde,

biological studies 100-83-4, 3-Hydroxy benzaldehyde 104-55-2, Cinnamaldehyde 121-33-5, Vanillin 123-08-0, 4-Hydroxy benzaldehyde 302-17-0, Chloral hydrate 4170-30-3, Crotonaldehyde 5392-40-5, Citral 7782-44-7D, Oxygen, reactive species

RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)

IT 420-04-2, Cyanamide

RL: ADV (Adverse effect, including toxicity); ARG (Analytical reagent use); BSU (Biological study, unclassified); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)

IT 79217-60-0, Cyclosporin

RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)

IT 53-57-6, NADPH 53-84-9, NAD+ 56-85-9, L-Glutamine, biological studies 57-48-7, D-Fructose, biological studies 58-68-4, NADH 70-18-8, Glutathione, biological studies 87-99-0, Xylitol 9031-72-5, Alcohol dehydrogenase 27025-41-8, GSSG

RL: BSU (Biological study, unclassified); BIOL (Biological study) (modulating carbonyl cytotoxicity in intact rat hepatocytes by inhibiting carbonyl metabolizing enzymes and aromatic aldehydes)

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 9 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2003:65461 HCAPLUS

DN 139:240134

TI Isoflurane Alters Energy Substrate Metabolism to Preserve Mechanical Function in Isolated Rat Hearts following Prolonged No-Flow Hypothermic Storage

AU Finegan, Barry A.; Gandhi, Manoj; Cohen, Matthew R.; Legatt, Donald; Clanachan, Alexander S.

CS Departments of Anesthesiology and Pain Medicine, Univ. Alberta, Edmonton, AB, T6G 2B7, Can.

SO Anesthesiology (2003), 98(2), 379-386

CODEN: ANESAV; ISSN: 0003-3022

PB Lippincott Williams & Wilkins

DT Journal

LA English

AB BACKGROUND Isoflurane enhances mech. function in hearts subject to normothermic global or regional ischemia. The authors examined the effectiveness of isoflurane in preserving mech. function in hearts subjected to cardioplegic arrest and prolonged hypothermic no-flow storage. The role of isoflurane in altering myocardial glucose metabolism during storage and reperfusion during these conditions and the contribution of ATP-sensitive potassium (KATP) channel activation in mediating the functional and metabolic effects of isoflurane preconditioning was determined METHODS Isolated working rat hearts were subjected to cardioplegic arrest with St. Thomas' II solution, hypothermic no-flow storage for 8 h, and subsequent aerobic reperfusion. The consequences of isoflurane treatment were assessed during the following conditions: (1) isoflurane exposure before and during storage; (2) brief isoflurane exposure during early nonworking poststorage reperfusion; and (3) isoflurane preconditioning before storage. The selective mitochondrial and sarcolemmal KATP channel antagonists, 5-hydroxydecanoate

and HMR 1098, resp., were used to assess the role of KATP channel activation on glycogen consumption during storage in isoflurane-preconditioned hearts. RESULTS Isoflurane enhanced recovery of mech. function if present before and during storage. Isoflurane preconditioning was also protective. Isoflurane reduced glycogen consumption during storage under the aforementioned circumstances. Storage of isoflurane-preconditioned hearts in the presence of 5-hydroxydecanoate prevented the reduction in glycogen consumption during storage and abolished the beneficial effect of isoflurane preconditioning on recovery of mech. function. CONCLUSIONS Isoflurane provides additive protection of hearts subject to cardioplegic arrest and prolonged hypothermic no-flow storage and favorably alters energy substrate metabolism by modulating glycolysis during ischemia. The effects of isoflurane preconditioning on glycolysis during hypothermic no-flow storage appears to be associated with activation of mitochondrial KATP channels.

CC 1-11 (Pharmacology)

Section cross-reference(s): 13

ST isoflurane heart energy substrate metab preservation function

IT Potassium channel

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(ATP-dependent; isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT Heart

(cardioplegia; isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT Cytoprotective agents

(cardioprotective; isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT Heart

Hypothermia

Organ preservation

(isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT Heart

(toxicity; isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT 26675-46-7, Isoflurane

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT 50-99-7, D-Glucose, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(metabolism; isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

IT 9005-79-2, Glycogen, biological studies

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(reduced consumption; isoflurane alters energy substrate metabolism to preserve mech. function in isolated rat hearts following prolonged No-flow hypothermic storage)

RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 10 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:792041 HCAPLUS

KATHLEEN FULLER EIC 1700 REMSON 4B28 571/272-2505

DN 137:289048
 TI Use of sugar phosphates, sugar phosphate analogs, amino acids and/or amino acid analogs for the **modulation** of the **glycolysis** enzyme complex of the malate aspartate shuttle and/or transaminases, and therapeutic use
 IN Eigenbrodt, Erich; Mazurek, Sybille; Grimm, Helmut
 PA ScheBo Biotech AG, Germany
 SO Ger. Offen., 14 pp.
 CODEN: GWXXBX
 DT Patent
 LA German
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 10164711	A1	20021017	DE 2001-10164711	20010313
PRAI	DE 2001-10164711		20010313		

OS MARPAT 137:289048
 AB The invention discloses the use of amino acids, amino acid analogs, sugar phosphates, sugar phosphate-analogues, and mixts. of such substances, for the production of a pharmaceutical composition for the treatment of tumors and/or
 for immunosuppression and/or the treatment of sepsis by **modulation** of the association of the **glycolysis** enzyme complex/M2-PK and/or by inhibition of transaminases and/or by dissociation of the bond of malate dehydrogenase at p36.
 IC ICM A61K031-198
 CC 1-12 (Pharmacology)
 ST amino acid sugar phosphate antitumor immunosuppressant; sepsis treatment amino acid sugar phosphate; **glycolysis** enzyme complex **modulation** amino acid sugar phosphate; malate dehydrogenase **transaminase modulation** amino acid sugar phosphate
 IT Enzymes, biological studies
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (glycolytic; sugar phosphates, amino acids, and analogs for **modulation** of **glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)
 IT Carcinoma
 (hepatocellular; sugar phosphates, amino acids, and analogs for **modulation** of **glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)
 IT Liver, neoplasm
 (hepatoma; sugar phosphates, amino acids, and analogs for **modulation** of **glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)
 IT Drug delivery systems
 (injections, i.v.; sugar phosphates, amino acids, and analogs for **modulation** of **glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)
 IT Proteins
 RL: BSU (Biological study, unclassified); BIOL (Biological study) (membrane, p36; sugar phosphates, amino acids, and analogs for **modulation** of **glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)
 IT Antitumor agents
 Immunosuppressants
 Neoplasm
 Sepsis
 (sugar phosphates, amino acids, and analogs for **modulation** of **glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

IT Amino acids, biological studies
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

IT Carbohydrates, biological studies
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (sugar phosphates; sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

IT 9001-59-6, Pyruvate kinase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (M2-PK; sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

IT 9001-64-3, Malate dehydrogenase 9031-66-7, Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

IT 52-90-4, L-Cysteine, biological studies 52-90-4D, L-Cysteine, analogs
 56-45-1, L-Serine, biological studies 56-45-1D, L-Serine, analogs
 61-90-5, L-Leucine, biological studies 61-90-5D, L-Leucine, analogs
 62-57-7, Aminoisobutyric acid 62-57-7D, Aminoisobutyric acid, analogs
 63-68-3, L-Methionine, biological studies 63-68-3D, L-Methionine, analogs
 68-41-7, Cycloserine 68-41-7D, Cycloserine, analogs 72-18-4, L-Valine, biological studies 72-18-4D, L-Valine, analogs 73-32-5, L-Isoleucine, biological studies 73-32-5D, L-Isoleucine, analogs
 138-81-8, Glycerate 2,3-diphosphate 138-81-8D, Glycerate 2,3-diphosphate, analogs 147-85-3, L-Proline, biological studies 147-85-3D, L-Proline, analogs 488-69-7, Fructose-1,6-bisphosphate 488-69-7D, Fructose-1,6-bisphosphate, analogs 645-88-5, Aminooxyacetic acid 645-88-5D, Aminooxyacetic acid, analogs 820-11-1 820-11-1D, analogs 14689-84-0, Ribose-1,5-diphosphate 14689-84-0D, Ribose-1,5-diphosphate, analogs 24218-00-6, Ribulose-1,5-bisphosphate 24218-00-6D, Ribulose-1,5-bisphosphate, analogs 108605-62-5 108605-62-5D, analogs
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

IT 9001-59-6, Pyruvate kinase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (M2-PK; sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

RN 9001-59-6 HCAPLUS
 CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9001-64-3, Malate dehydrogenase 9031-66-7, Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (sugar phosphates, amino acids, and analogs for **modulation of glycolysis** enzyme complex of malate aspartate shuttle and/or transaminases, and therapeutic use)

RN 9001-64-3 HCAPLUS
 CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9031-66-7 HCAPLUS

CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 11 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:716073 HCAPLUS

DN 137:226595

TI Use of sugar phosphates, sugar phosphate analogues, amino acids, amino acid analogues for **modulating transaminases** and/or the association of p36/malate dehydrogenase

IN Eigenbrodt, Erich; Mazurek, Sybille; Muellner, Stefan

PA Germany

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072078	A2	20020919	WO 2002-DE921	20020312
	WO 2002072078	A3	20021212		
	WO 2002072078	C2	20030130		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10112925	A1	20021002	DE 2001-10112925	20010313
	EP 1372646	A2	20040102	EP 2002-750522	20020312
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	US 2005054584	A1	20050310	US 2004-471866	20040816
PRAI	DE 2001-10112925	A	20010313		
	WO 2002-DE921	W	20020312		

OS MARPAT 137:226595

AB The invention relates to the use of a substance selected from the group consisting of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analogs and mixts. of said substances, for producing a pharmaceutical composition for reducing weight and/or preventing delayed damage caused by diabetes mellitus by modulating the association p36/malate dehydrogenase and/or transaminases. The substances are used in i.v. formulations and as food supplements along with insulin administration.

IC ICM A61K031-00

CC 1-6 (Pharmacology)

Section cross-reference(s): 17, 63

ST sugar phosphate amino acid diabetes mellitus

IT Drug delivery systems

(injections, i.v.; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analogues for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(membrane, p36; use of sugar phosphates, sugar phosphate analogs, amino

acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Glycopeptides
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
 (serine-containing; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Carbohydrates, biological studies
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
 (sugar phosphates; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Diet
 (supplements; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Drug delivery systems
 (tablets; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Diabetes mellitus
 (use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT Amino acids, biological studies
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
 (use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT 9001-64-3, Malate dehydrogenase 9031-66-7, Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors of; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT 52-90-4, L-Cysteine, biological studies 56-45-1, L-Serine, biological studies 61-90-5, L-Leucine, biological studies 62-57-7 63-68-3, L-Methionine, biological studies 72-18-4, L-Valine, biological studies 73-32-5, L-Isoleucine, biological studies 138-81-8, Glycerate-2,3-diphosphate 147-85-3, L-Proline, biological studies 488-69-7 645-88-5 2002-28-0, Ribulose-1,5-diphosphate 9004-10-8, Insulin, biological studies 14689-84-0, Ribose-1,5-diphosphate 108605-62-5
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); **USES (Uses)**
 (use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

IT 9001-64-3, Malate dehydrogenase 9031-66-7, Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors of; use of sugar phosphates, sugar phosphate analogs, amino acids, amino acid analoges for **modulating transaminases** and association of p36/malate dehydrogenase)

RN 9001-64-3 HCAPLUS
 CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9031-66-7 HCAPLUS
 CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 12 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2002:716072 HCAPLUS

DN 137:226594

TI Use of sugar phosphate, sugar phosphate analogues, amino acids and/or amino acid analogues for **modulating the glycolysis** -enzyme complex, the malate-aspartate shuttle and/or transaminases

IN Eigenbrodt, Erich; Mazurek, Sybille; Grimm, Helmut

PA Schebo Biotech A.-G., Germany

SO PCT Int. Appl., 27 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2002072077	A2	20020919	WO 2002-DE212	20020117
	WO 2002072077	A3	20021227		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
	RW:				
	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	DE 10112926	A1	20021002	DE 2001-10112926	20010313
	EP 1368018	A2	20031210	EP 2002-704608	20020117
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
	JP 2004524326	T2	20040812	JP 2002-571036	20020117
	US 2004235755	A1	20041125	US 2004-471705	20040604
PRAI	DE 2001-10112926	A	20010313		
	WO 2002-DE212	W	20020117		

OS MARPAT 137:226594

AB The invention relates to the use of a substance selected from the group consisting of "amino acids, amino acid analogs, sugar phosphates, sugar phosphate analogs and mixts. of substances of this type" for producing a pharmaceutical composition for treating tumors and/or for immunosuppression and/or sepsis by **modulating** the association of the **glycolysis**-enzyme complex/M2-PK and/or by inhibiting transaminases and/or by dissolving the malate dehydrogenase bond with p36.

IC ICM A61K031-00

CC 1-6 (Pharmacology)

Section cross-reference(s): 7, 63

ST sugar phosphate amino acid neoplasm immunosuppression

IT Drug delivery systems

(injections, i.v.; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT Proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)

(membrane, p36; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis** -enzyme complex, malate-aspartate shuttle and transaminases)

IT Glycopeptides

RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (serine-containing; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT Carbohydrates, biological studies
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (sugar phosphates; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT Immunosuppression
 Neoplasm
 Sepsis
 (use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT Amino acids, biological studies
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT 9001-59-6, Pyruvate kinase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (M2 isoenzyme, inhibitors of; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT 9001-64-3, Malate dehydrogenase 9031-66-7, Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors of; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT 52-90-4, L-Cysteine, biological studies 56-45-1, L-Serine, biological studies 61-90-5, L-Leucine, biological studies 62-57-7 63-68-3, L-Methionine, biological studies 72-18-4, L-Valine, biological studies 73-32-5, L-Isoleucine, biological studies 138-81-8, Glycerate-2,3-diphosphate 147-85-3, L-Proline, biological studies 488-69-7 645-88-5 2002-28-0, Ribulose-1,5-diphosphate 14689-84-0, Ribose-1,5-diphosphate 108605-62-5
 RL: PAC (Pharmacological activity); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
 (use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

IT 9001-59-6, Pyruvate kinase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (M2 isoenzyme, inhibitors of; use of sugar phosphate, sugar phosphate analogs, amino acids, amino acid analogs for **modulating glycolysis**-enzyme complex, malate-aspartate shuttle and transaminases)

RN 9001-59-6 HCAPLUS
 CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

IT 9001-64-3, Malate dehydrogenase 9031-66-7, Transaminase
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (inhibitors of; use of sugar phosphate, sugar phosphate analogs, amino

acids, amino acid analogs for **modulating glycolysis**
 -enzyme complex, malate-aspartate shuttle and transaminases)

RN 9001-64-3 HCAPLUS

CN Dehydrogenase, malate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RN 9031-66-7 HCAPLUS

CN Aminotransferase (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 13 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:905538 HCAPLUS

DN 136:177621

TI Adenine nucleotide translocator mediates the mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437

AU Belzacq, Anne-Sophie; El Hamel, Chahrazed; Vieira, Helena L. A.; Cohen, Isabel; Haouzi, Delphine; Metivier, Didier; Marchetti, Philippe; Brenner, Catherine; Kroemer, Guido

CS CNRS-UM R6022, Universite de Technologie de Compiegne, Compiegne, F-60205, Fr.

SO Oncogene (2001), 20(52), 7579-7587

CODEN: ONCNES; ISSN: 0950-9232

PB Nature Publishing Group

DT Journal

LA English

AB An increasing number of exptl. chemotherapeutic agents induce apoptosis by directly triggering mitochondrial membrane permeabilization (MMP). Here we examined MMP induced by lonidamine, arsenite, and the retinoid derivative CD437. Cells overexpressing the cytomegalovirus-encoded protein vMIA, a protein which interacts with the adenine nucleotide translocator, were strongly protected against the MMP-inducing and apoptogenic effects of lonidamine, arsenite, and CD437. In a cell-free system, lonidamine, arsenite, and CD437 induced the permeabilization of ANT proteoliposomes, yet had no effect on protein-free liposomes. The ANT-dependent membrane permeabilization was inhibited by the two ANT ligands ATP and ADP, as well as by recombinant Bcl-2 protein. Lonidamine, arsenite, and CD437, added to synthetic planar lipid bilayers containing ANT, elicited ANT channel activities with clearly distinct conductance levels of 20 ± 7 , 100 ± 30 , and 47 ± 7 pS, resp. Altering the ATP/ADP gradient built up on the inner mitochondrial membrane by inhibition of **glycolysis** and/or oxidative phosphorylation differentially **modulated** the cytotoxic potential of lonidamine, arsenite, and CD437. Inhibition of F₀F₁ATPase without glycolysis inhibition sensitized to lonidamine-induced cell death. In contrast, only the combined inhibition of glycolysis plus F₀F₁ATPase sensitized to arsenite-induced cell death. No sensitization to cell death induction by CD437 was achieved by glucose depletion and/or oligomycin addition. These results indicate that ANT is a target of lonidamine, arsenite, and CD437 and unravel an unexpected heterogeneity in the mode of action of these three compds.

CC 1-6 (Pharmacology)

ST adenine nucleotide translocator mitochondria membrane permeability
 lonidamine arsenite CD437

IT Transport proteins

RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (ADP/ATP carrier; adenine nucleotide translocator mediates
 mitochondrial membrane permeabilization induced by lonidamine, arsenite
 and CD437)

IT Apoptosis

Glycolysis

Liposomes
 Oxidative phosphorylation, biological
 (adenine nucleotide translocator mediates mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437)

IT Ion channel
 RL: BSU (Biological study, unclassified); BIOL (Biological study)
 (adenine nucleotide translocator mediates mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437)

IT Mitochondria
 (membrane; adenine nucleotide translocator mediates mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437)

IT Membrane, biological
 (mitochondrial; adenine nucleotide translocator mediates mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437)

IT Biological transport
 (permeation; adenine nucleotide translocator mediates mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437)

IT 15502-74-6, Arsenite 50264-69-2, Lonidamine 125316-60-1, CD437
 RL: PAC (Pharmacological activity); BIOL (Biological study)
 (adenine nucleotide translocator mediates mitochondrial membrane permeabilization induced by lonidamine, arsenite and CD437)

RE.CNT 52 THERE ARE 52 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 14 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:886508 HCAPLUS

DN 136:31642

TI Modulators of hr44 as therapeutic compounds

IN Braun, Gabriele; Mckechnie, Nicol

PA University of Bristol, UK

SO PCT Int. Appl., 36 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI WO 2001092521	A1	20011206	WO 2001-GB2397	20010530
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM			
RW:	GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG			
CA 2409191	AA	20011206	CA 2001-2409191	20010530
EP 1305413	A1	20030502	EP 2001-934163	20010530
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR			
US 2003134816	A1	20030717	US 2002-300575	20021120
PRAI GB 2000-13105	A	20000530		
WO 2001-GB2397	W	20010530		
AB	The present invention relates to a compound capable of modulating the activity and/or expression of hr44, for use in therapy. Drug screening methods are also disclosed.			
IC	ICM C12N015-12			
	ICS C07K014-47; G01N033-53; C07K016-18; C07K016-30; A61K039-395			
CC	1-1 (Pharmacology)			

Section cross-reference(s): 9, 15, 63

ST drug screening hr44 sequence antitumor diagnostic

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(YP4; modulators of hr44 as therapeutic compds.)

IT Diagnosis
(agents; modulators of hr44 as therapeutic compds.)

IT Tumor antigens
Tumor antigens
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(antibodies to; modulators of hr44 as therapeutic compds.)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(fibrillarins; modulators of hr44 as therapeutic compds.)

IT Proteins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(hnRNPE1; modulators of hr44 as therapeutic compds.)

IT Proteins
RL: BSU (Biological study, unclassified); PRP (Properties); **THU (Therapeutic use)**; BIOL (Biological study); USES (Uses)
(hr44; modulators of hr44 as therapeutic compds.)

IT Fatty acids, biological studies
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(metabolism of; modulators of hr44 as therapeutic compds.)

IT Antitumor agents
Blood vessel, disease
Diagnosis
Drug delivery systems
Drug screening
Glycolysis
Human
Neoplasm
Protein sequences
RNA splicing
cDNA sequences
(modulators of hr44 as therapeutic compds.)

IT Prostaglandins
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(modulators of hr44 as therapeutic compds.)

IT Antibodies and Immunoglobulins
RL: BSU (Biological study, unclassified); **THU (Therapeutic use)**;
BIOL (Biological study); USES (Uses)
(modulators of hr44 as therapeutic compds.)

IT Biological transport
(of fatty acids; modulators of hr44 as therapeutic compds.)

IT 379739-29-4
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(amino acid sequence; modulators of hr44 as therapeutic compds.)

IT 9001-59-6, Pyruvate kinase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(modulators of hr44 as therapeutic compds.)

IT 379739-28-3, DNA (human protein YP4 cDNA plus flanks)
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL
(Biological study)
(nucleotide sequence; modulators of hr44 as therapeutic compds.)

IT 379693-36-4 379693-37-5 379693-38-6 379693-39-7 380227-77-0
RL: PRP (Properties)
(unclaimed sequence; modulators of hr44 as therapeutic compds.)

IT 9001-59-6, Pyruvate kinase

RL: BSU (Biological study, unclassified); BIOL (Biological study)
(modulators of hr44 as therapeutic compds.)

RN 9001-59-6 HCAPLUS

CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 15 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 2001:309344 HCAPLUS

DN 135:102272

TI Modulation of early $[Ca^{2+}]_i$ rise in metabolically inhibited endothelial cells by xestospongine C

AU Schafer, M.; Bahde, D.; Bosche, B.; Ladilov, Y.; Schafer, C.; Piper, H. M.; Noll, T.

CS Physiologisches Institut, Justus-Liebig-Universitat, Giessen, D-35392, Germany

SO American Journal of Physiology (2001), 280(3, Pt. 2), H1002-H1010
CODEN: AJPHAP; ISSN: 0002-9513

PB American Physiological Society

DT Journal

LA English

AB When energy metabolism is disrupted, endothelial cells lose Ca^{2+} from endoplasmic reticulum (ER) and the cytosolic Ca^{2+} concentration ($[Ca^{2+}]_i$) increases. The importance of glycolytic energy production and the mechanism of Ca^{2+} loss from the ER were analyzed. Endothelial cells from porcine aorta in culture and in situ were used as models. 2-Deoxy-D-glucose (2-DG, 10 mM), an inhibitor of glycolysis, caused an increase in $[Ca^{2+}]_i$ (measured with fura 2) within 1 min when total cellular ATP contents were not yet affected. Stimulation of oxidative energy production with pyruvate (5 mM) did not attenuate this 2-DG-induced rise of $[Ca^{2+}]_i$, while this maneuver preserved cellular ATP contents. The inhibitor of ER- Ca^{2+} -ATPase, thapsigargin (10 nM), augmented the 2-DG-induced rise of $[Ca^{2+}]_i$. Xestospongine C (3 μ M), an inhibitor of D-myo-inositol 3-phosphate $[Ins(3)P]$ -sensitive ER- Ca^{2+} release, abolished the rise. The results demonstrate that the ER of endothelial cells is very sensitive to glycolytic metabolic inhibition. When this occurs, the ER Ca^{2+} store is discharged by opening of the $Ins(3)P$ -sensitive release channel. Xestospongine C can effectively suppress the early $[Ca^{2+}]_i$ rise in metabolically inhibited endothelial cells.

CC 1-8 (Pharmacology)

Section cross-reference(s): 13, 14

ST glycolysis aorta endothelium calcium xestospongine C

IT Calcium channel

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
($Ins(3)P$ -sensitive; modulation of early $[Ca^{2+}]_i$ rise in metabolically inhibited endothelial cells by xestospongine C)

IT Artery

(aorta, endothelium; modulation of early $[Ca^{2+}]_i$ rise in metabolically inhibited endothelial cells by xestospongine C)

IT Cytoplasm

(cytosol; modulation of early $[Ca^{2+}]_i$ rise in metabolically inhibited endothelial cells by xestospongine C)

IT Glycolysis

(modulation of early $[Ca^{2+}]_i$ rise in metabolically inhibited endothelial cells by xestospongine C)

IT 9000-83-3

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL

(Biological study); PROC (Process)
 (calcium-dependent; modulation of early [Ca2+]i rise in metabolically inhibited endothelial cells by xestospongine C)

IT 14127-61-8, Ca2+, biological studies
 RL: ADV (Adverse effect, including toxicity); BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (modulation of early [Ca2+]i rise in metabolically inhibited endothelial cells by xestospongine C)

IT 88903-69-9, Xestospongine C
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
 (modulation of early [Ca2+]i rise in metabolically inhibited endothelial cells by xestospongine C)

IT 2831-74-5, D-myo-Inositol 3-phosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (modulation of early [Ca2+]i rise in metabolically inhibited endothelial cells by xestospongine C)

RE.CNT 32 THERE ARE 32 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 16 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 2001:164194 HCAPLUS
 DN 135:14222
 TI GABAergic blockade of cocaine-associated cue-induced increases in nucleus accumbens dopamine
 AU Gerasimov, M. R.; Schiffer, W. K.; Gardner, E. L.; Marsteller, D. A.; Lennon, I. C.; Taylor, S. J. C.; Brodie, J. D.; Ashby, C. R.; Dewey, S. L.
 CS Chemistry Department, Brookhaven National Laboratory, Upton, NY, 11973, USA
 SO European Journal of Pharmacology (2001), 414(2/3), 205-209
 CODEN: EJPHAZ; ISSN: 0014-2999
 PB Elsevier Science B.V.
 DT Journal
 LA English
 AB Environments previously associated with drug use can become one of the most common factors triggering relapse to drug-seeking behavior. To better understand the neurochem. mechanisms potentially mediating these cues, we measured nucleus accumbens dopamine levels in animals exposed to environmental cues previously paired with cocaine administration. In animals exposed to a cocaine-paired environment nucleus accumbens dopamine increased by 25%. When administered 2.5 h prior to presentation of the environmental trigger, racemic vigabatrin (an irreversible inhibitor of γ -aminobutyric acid (GABA)-transaminase) abolished this cue-induced increase. Conversely, R-(-)-vigabatrin, the inactive enantiomer, had no effect. Combined with our earlier findings, these studies support the potential therapeutic benefit of this enzyme-based GABAergic strategy to modulate brain dopamine and the subsequent treatment of drug addiction.

CC 1-11 (Pharmacology)
 ST GABA transaminase brain dopamine cocaine addiction
 IT Neurotransmission
 (GABAergic; therapeutic benefit of GABAergic blockade to modulate brain dopamine in cocaine addiction)

IT Brain
 (nucleus accumbens; therapeutic benefit of GABAergic blockade to modulate brain dopamine in cocaine addiction)

IT Drug dependence
 (therapeutic benefit of GABAergic blockade to modulate brain dopamine

in cocaine addiction)

IT 50-36-2, Cocaine
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study)
(therapeutic benefit of GABAergic blockade to modulate brain dopamine
in cocaine addiction)

IT 51-61-6, Dopamine, biological studies
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL
(Biological study); PROC (Process)
(therapeutic benefit of GABAergic blockade to modulate brain dopamine
in cocaine addiction)

IT 9037-67-6, GABA **transaminase**
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(therapeutic benefit of GABAergic blockade to **modulate** brain
dopamine in cocaine addiction)

RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 17 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 2000:415156 HCAPLUS
DN 133:276145
TI GABA-**transaminase** antisense oligodeoxynucleotide
modulates cocaine- and pentylentetrazol-induced seizures in mice
AU Abel, Marc S.; Kohli, Neelu
CS Department of Cell Biology and Anatomy, FUHS/The Chicago Medical School,
North Chicago, IL, 60064, USA
SO Metabolic Brain Disease (1999), 14(4), 253-263
CODEN: MBDIEE; ISSN: 0885-7490
PB Kluwer Academic/Plenum Publishers
DT Journal
LA English
AB The mechanism of action of many anticonvulsive agents is to increase the
function of the GABAergic system. Inhibition of GABA-Transaminase
(GABA-T), the degradative enzyme for GABA, increases GABA levels in the
brain. In this study, antisense oligodeoxynucleotides (ASO) targeted at
the start codon region of GABA-Transaminase mRNA were used to modify
seizure activity. Mice were treated, by intracerebroventricular
injection, with antisense oligos or appropriate controls. At various
times after treatment, the animals were challenged with cocaine (70 mg/kg,
i.p.) and observed for seizure activity. At 15 h after treatment, 1.152 and
1.44 nmol antisense oligo blocked cocaine-induced seizures. There was no
effect of antisense oligo 8 or 36 h after treatment. In addition, treatment
with 7.2 nmol antisense oligo prevented pentylentetrazol-induced
seizures. These data demonstrate the modulation of seizure threshold
using antisense oligodeoxynucleotides to GABA-T.

CC 1-11 (Pharmacology)
ST GABA transaminase antisense oligodeoxynucleotide anticonvulsant
IT Anticonvulsants
GABA agonists
(GABA-**transaminase** antisense oligodeoxynucleotide
modulates cocaine- and pentylentetrazol-induced seizures in
mice)

IT Antisense oligonucleotides
RL: BAC (Biological activity or effector, except adverse); BSU (Biological
study, unclassified); BUU (Biological use, unclassified); BIOL (Biological
study); USES (Uses)
(GABA-**transaminase** antisense oligodeoxynucleotide
modulates cocaine- and pentylentetrazol-induced seizures in
mice)

IT mRNA
RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(GABA-transaminase-specifying; GABA-transaminase antisense oligodeoxynucleotide modulates cocaine- and pentylenetetrazol-induced seizures in mice)

IT 300433-48-1 300433-49-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(GABA-transaminase antisense oligodeoxynucleotide modulates cocaine- and pentylenetetrazol-induced seizures in mice)

IT 9037-67-6, GABA-transaminase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(GABA-transaminase antisense oligodeoxynucleotide modulates cocaine- and pentylenetetrazol-induced seizures in mice)

RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 18 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1999:390180 HCAPLUS

DN 131:196547

TI Magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis

AU Ronen, S. M.; DiStefano, F.; McCoy, C. L.; Robertson, D.; Smith, T. A. D.; Al-Saffar, N. M.; Titley, J.; Cunningham, D. C.; Griffiths, J. R.; Leach, M. O.; Clarke, P. A.

CS Clinical Magnetic Resonance Research Group, Cancer Research Campaign (CRC), Sutton, Surrey, SM2 5PT, UK

SO British Journal of Cancer (1999), 80(7), 1035-1041

CODEN: BJCAAI; ISSN: 0007-0920

PB Churchill Livingstone

DT Journal

LA English

AB Apoptosis was induced by treating L1210 leukemia cells with mechlorethamine, and SW620 colorectal cells with doxorubicin. The onset and progression of apoptosis were monitored by assessing caspase activation, mitochondrial transmembrane potential, phosphatidylserine externalization, DNA fragmentation and cell morphol. In parallel, 31P magnetic resonance (MR) spectra of cell exts. were recorded. In L1210 cells, caspase activation was detected at 4 h. By 3 h, the MR spectra showed a steady decrease in NTP and NAD, and a significant build-up of fructose 1,6-bisphosphate (F-1,6-P,) dihydroxyacetonephosphate and glycerol-3-phosphate, indicating modulation of glycolysis. Treatment with iodoacetate also induced a build-up of F-1,6-P, while preincubation with two poly(ADP-ribose) polymerase inhibitors, 3-aminobenzamide and nicotinamide, prevented the drop in NAD and the build-up of glycolytic intermediates. This suggested that our results were due to inhibition of glyceraldehyde-3-phosphate dehydrogenase, possibly as a consequence of NAD depletion following poly(ADP-ribose) polymerase activation. Doxorubicin treatment of the adherent SW620 cells caused cells committed to apoptosis to detach. F-1,6-P was observed in detached cells, but not in treated cells that remained attached. This indicated that our observations were not cell line- or treatment-specific, but were correlated with the appearance of apoptotic cells following drug treatment. The 31P MR spectrum of tumors responding to chemotherapy could be modulated by similar effects.

CC 9-5 (Biochemical Methods)

Section cross-reference(s): 1

- ST NMR spectroscopy cell chemotherapy apoptosis metab
IT DNA
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(fragmentation; magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT Apoptosis
Cell morphology
Chemotherapy
Glycolysis
Leukemia
Metabolism, animal
Staining, biological
(magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT Nucleoside triphosphates
Phosphatidylserines
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT Animal tissue culture
(mammalian, colorectal cells and leukemia cells; magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT NMR spectroscopy
(phosphorus-31; magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT 51-75-2, Mechlorethamine 64-69-7, Acetic acid, iodo- 98-92-0, Nicotinamide 3544-24-9, 3-Aminobenzamide 23214-92-8, Doxorubicin
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT 9055-67-8, Poly(ADP-ribose)polymerase
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- IT 53-84-9, NAD 57-03-4, Glycerol-3-phosphate 57-04-5, Dihydroxyacetonephosphate 488-69-7, Fructose 1,6-bisphosphate
RL: BSU (Biological study, unclassified); PRP (Properties); BIOL (Biological study)
(magnetic resonance detects metabolic changes associated with chemotherapy-induced apoptosis)
- RE.CNT 27 THERE ARE 27 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 19 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
AN 1998:128775 HCAPLUS
DN 128:226162
TI Fructose-1,6-bisphosphate preserves adenosine triphosphate but not intracellular pH during hypoxia in respiring neonatal rat brain slices
AU Espanol, Maryceline T.; Litt, Lawrence; Hasegawa, Koh; Chang, Lee-Hong; Macdonald, Jeffrey M.; Gregory, George; James, Thomas L.; Chan, Pak H.
CS Departments of Anesthesia, Pharmaceutical Chemistry, Neurology, Neurosurgery, Radiology, The University of California, San Francisco, San Francisco, CA, 94143-0648, USA
SO Anesthesiology (1998), 88(2), 461-472
CODEN: ANESAV; ISSN: 0003-3022
PB Lippincott-Raven Publishers

DT Journal

LA English

AB Fructose-1,6-bisphosphate (FBP) sometimes provides substantial cerebral protection during hypoxia or ischemia. ³¹P/¹H NMR spectroscopy of cerebrocortical slices was used to study the effects of FBP on hypoxia-induced metabolic changes. In addition, ¹³C-labeled glucose was administered and ¹³C NMR spectroscopy was used to search for FBP-induced modulations in glycolysis and the pentose-phosphate pathway. In each experiment, 80 slices (350 μm) obtained from ten 7-day-old Sprague-Dawley rat litter mates were placed together in a 20-mm NMR tube, perfused, and subjected to 30 min of hypoxia (P_{O2} < 3 mmHg). Nine expts. were performed, with in each of three groups: (1) no treatment with FBP; (2) 60 min of prehypoxia treatment with FBP (2 mM); and (3) 60 min of posthypoxia treatment with FBP (2 mM). ³¹P/¹H Interleaved NMR spectra at 4.7 T provided average ATP, intracellular pH, and lactate. Cresyl violet stains of random slices taken at predetd. time points were studied histol. Some expts. had [2-¹³C]glucose in the perfusate. Slices from these studies were frozen for perchloric acid extraction of intracellular metabolites and studied with high-resolution ¹³C NMR spectroscopy at 11.75 T. With no pretreatment with FBP, hypoxia caused an ≈50% loss of ATP, an ≈700% increase in lactate, and a decrease in intracellular pH to ≈6.4. Pretreatment with FBP resulted in no detectable loss of ATP, no increase in lactate, and minimal morphol. changes but did not alter decreases in intracellular pH. ¹³C NMR spectra of extracted metabolites showed that pretreatment caused accumulation of [1-¹³C]fructose-6-phosphate, an early pentose-phosphate pathway metabolite. Posthypoxic treatment with FBP had no effects compared with no treatment. During severe hypoxia, pretreatment with FBP completely preserves ATP and almost completely preserves cell morphol. but does not alter hypoxia-induced decreases in intracellular pH. Pretreatment also substantially augments the flux of glucose into the pentose phosphate pathway.

CC 1-11 (Pharmacology)

ST fructose bisphosphate ATP hypoxia brain

IT Brain

Energy metabolism, animal

Glycolysis

Hypoxia, animal

Pentose phosphate pathway

(fructose bisphosphate preserves ATP but not intracellular pH during cerebral hypoxia)

IT Cytoprotective agents

(neuroprotectants; fructose bisphosphate preserves ATP but not intracellular pH during cerebral hypoxia)

IT 488-69-7, Fructose-1,6-bisphosphate

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(fructose bisphosphate preserves ATP but not intracellular pH during cerebral hypoxia)

IT 56-65-5, 5'-ATP, biological studies 67-07-2, Phosphocreatine

RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(fructose bisphosphate preserves ATP but not intracellular pH during cerebral hypoxia)

IT 50-21-5, Lactic acid, biological studies 643-13-0, Fructose-6-phosphate

RL: BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative)

(fructose bisphosphate preserves ATP but not intracellular pH during cerebral hypoxia)

RE.CNT 43 THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD

ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 20 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1997:644409 HCAPLUS
 DN 127:326458
 TI Dexfenfluramine modulates hepatic glycogen metabolism by a calcium-dependent pathway
 AU Comte, Blandine; Romanelli, Angela; Haddad, Pierre; Van De Werve, Gerald
 CS Laboratoire d'endocrinologie metabolique, Departement de nutrition, Universite de Montreal, Montreal, QC H3C 3J7, Can.
 SO Canadian Journal of Physiology and Pharmacology (1997), 75(7), 842-848
 CODEN: CJPPA3; ISSN: 0008-4212
 PB National Research Council of Canada
 DT Journal
 LA English
 AB In this study, the mechanism of action of dexfenfluramine (DEXF) at the hepatic level was investigated. The drug is shown to bind to the $\alpha 1$ -adrenergic receptor and to increase intracellular calcium in isolated rat hepatocytes, thereby activating phosphorylase via a calcium-dependent mechanism. Moreover, phosphorylase activation by DEXF was inhibited by different agents that interfere with the $\alpha 1$ -adrenergic signaling system: prazosin, phorbol 12 α -myristate 13 β -acetate (PMA), and DEXF itself. We also show that phosphorylase activation induced by catecholamines and analogs (epinephrine, phenylephrine), whose actions are mediated by a calcium-dependent mechanism, was counteracted by the drug in the submillimolar range (0.1-1 mM). The activation of glycogenolysis by the drug is accompanied by a stimulation of the glycolytic flux (54% increase in lactate plus pyruvate accumulation), consistent with an increase in fructose-2,6-bisphosphate (F-2,6-BP) levels (36%). These results indicate that the interaction of DEXF with the $\alpha 1$ -adrenergic receptor channels glucose 6-phosphate derived from glycogen away from glucose production into the glycolytic pathway.
 CC 1-12 (Pharmacology)
 ST dexfenfluramine liver glycogen calcium phosphorylase; alphas adrenoceptor phosphorylase glycogen dexfenfluramine
 IT **Glycolysis**
 Liver
 (dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to $\alpha 1$ -adrenergic receptor)
 IT Catecholamines, biological studies
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to $\alpha 1$ -adrenergic receptor)
 IT Liver
 (hepatocyte; dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to $\alpha 1$ -adrenergic receptor)
 IT Adrenoceptor agonists
 ($\alpha 1$ -; dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to $\alpha 1$ -adrenergic receptor)
 IT Adrenoceptors
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 ($\alpha 1$; dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to

- α 1-adrenergic receptor)
- IT 9035-74-9, Phosphorylase
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (activation of; dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to α 1-adrenergic receptor)
- IT 51-43-4, Epinephrine 59-42-7, Phenylephrine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
 (dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to α 1-adrenergic receptor)
- IT 3239-44-9, Dexfenfluramine
 RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 (dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to α 1-adrenergic receptor)
- IT 50-21-5, Lactic acid, biological studies 50-99-7, Glucose, biological studies 56-73-5, Glucose 6-phosphate 127-17-3, Pyruvic acid, biological studies 7440-70-2, Calcium, biological studies 9005-79-2, Glycogen, biological studies 77164-51-3, Fructose-2,6-bisphosphate
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to α 1-adrenergic receptor)
- IT 7440-70-2, Calcium, biological studies
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (transport; dexfenfluramine modulates hepatic glycogen metabolism by calcium-dependent activation of phosphorylase and by binding to α 1-adrenergic receptor)
- RE.CNT 34 THERE ARE 34 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L63 ANSWER 21 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1996:642298 HCAPLUS
 DN 125:321775
 TI Effects of the inhibitors of energy metabolism, lonidamine and levamisole, on 5-aminolevulinic-acid-induced photochemotherapy
 AU Shevchuk, Igor; Chekulayev, Vladimir; Moan, Johan; Berg, Kristian
 CS Institute Chemistry, Estonian Academy Science, Tallinn, EE0026, Estonia
 SO International Journal of Cancer (1996), 67(6), 791-799
 CODEN: IJCNAW; ISSN: 0020-7136
 PB Wiley-Liss
 DT Journal
 LA English
 AB The ability of endogenously synthesized protoporphyrin IX (PpIX) to damage Chinese hamster lung fibroblasts of the line V79 by exposure to light was examined. This treatment induced reduction of cellular ATP, GTP, of the NADH/NAD⁺ ratio and of oxygen consumption. The present results indicate a close relationship between inhibition of respiration of irradiated cells and their ability to survive, e.g., 1 min of light exposure induced 90% inhibition of oxygen consumption and inactivation of approx. 95% of the cells, while the cellular content of ATP was reduced by only 15%. This indicates that the mitochondria are one of the primary targets of 5-aminolevulinic acid (ALA)-mediated photochemotherapy (PCT). In the

present study, ALA-PCT was combined with the modulators of the glycolysis and the respiration chain, levamisole (LEV) and lonidamine (LND). A synergistic effect of combining ALA-PCT with non-toxic concns. of LND was observed when LND was given prior to light exposure. This synergism was observed despite a substantial LND-induced inhibition of PpIX formation. At increasing doses of LND (>0.15 mM) the combination treatment becomes less efficient. This is due to the inhibition of PpIX synthesis induced by LND. A synergistic effect of ALA-PCT and LEV was found when LEV was given prior to light exposure. This was at least partly due to an LEV-stimulated effect on ALA-induced PpIX formation. However, it is not clear from the present results whether LEV may perturb energy metabolism in V79 cells since LEV alone did not reduce the energy charge or the NADH/NAD⁺ ratio. When LEV or LND were given after ALA-PCT, these 2 treatment modalities acted in an additive or slightly synergistic manner.

- CC 8-9 (Radiation Biochemistry)
- ST energy metab inhibitor aminolevulinate photochemotherapy
- IT Photosensitizers
 - (energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT Neoplasm inhibitors
 - (photosensitizing; energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT Phototherapy
 - (chemo-, energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT Animal metabolism
 - (energy, inhibitors; energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT Photodynamic action
 - (therapeutic, energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT 53-84-9, NAD 56-65-5, 5'-Atp, analysis 58-64-0, 5'-Adp, analysis 58-68-4, Nadh 61-19-8, 5'-Amp, analysis 86-01-1, Gtp
 - RL: ANT (Analyte); ANST (Analytical study)
 - (energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT 106-60-5, 5-Aminolevulinic acid 14769-73-4, Levamisole 50264-69-2, Lonidamine
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
 - (energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced photochemotherapy)
- IT 553-12-8, Protoporphyrin IX
 - RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); FMU (Formation, unclassified); THU (Therapeutic use); BIOL (Biological study); FORM (Formation, nonpreparative); USES (Uses)
 - (energy metabolism inhibitors lonidamine and levamisole effect on 5-aminolevulinic-acid-induced protoporphyrin photochemotherapy)

- L63 ANSWER 22 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
- AN 1995:748075 HCAPLUS
- DN 123:188214
- TI Modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes
- AU Comte, Blandine; Romanelli, Angela; Tchu, Sophie; van de Werve, Gerald
- CS Dep. Nutrition, Univ. Montreal, Quebec, H3C 3J7, Can.
- SO Biochemical Journal (1995), 310(1), 61-6

CODEN: BIJOAK; ISSN: 0264-6021

PB Portland Press

DT Journal

LA English

AB The mechanism of the antihyperglycemic action of dexfenfluramine (DEXF) was investigated in isolated rat hepatocytes exposed to glucagon. Preincubation of hepatocytes with DEXF caused a dose-dependent inhibition of cAMP formation by 100 nM glucagon ($K_i = 0.29$ mM) that was almost complete at 1 mM DEXF. Surprisingly, glucagon-induced phosphorylase activation was not affected by DEXF despite the significant drop in cAMP levels. Glucose production stimulated by glucagon was inhibited by $\leq 48\%$ by 1 mM DEXF; and the rate of glucose production correlated pos. with the steady-state concentration of glucose 6-phosphate. DEXF also partially

restored

lactate + pyruvate production which was abolished by an optimal concentration of

glucagon. Although DEXF was not able to prevent the inactivation of pyruvate kinase by glucagon, the lack of further accumulation of phosphoenolpyruvate in DEXF-treated cells supports the conclusion that the flux through pyruvate kinase is stimulated, probably via the increase in fructose 2,6-bisphosphate, thereby increasing glycolysis. The results thus indicate that DEXF counteracts the inhibition of glycolysis by glucagon and that this property might contribute to the antihyperglycemic effect of this drug. Furthermore, this study shows that, in the presence of the drug, glucagon caused phosphorylase activation and pyruvate kinase inactivation without a significant increase in cAMP levels. Furthermore, this study shows that, in the presence of the drug, glucagon caused phosphorylase activation and pyruvate kinase inactivation without a significant increase in cAMP levels.

CC 1-10 (Pharmacology)

ST glucagon glucose formation dexfenfluramine hepatocyte

IT Antidiabetics and Hypoglycemics

Glycolysis

(modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

IT Liver

(hepatocyte, modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

IT 9007-92-5, Glucagon, biological studies

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

IT 3239-44-9, Dexfenfluramine

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

IT 9001-59-6, Pyruvate kinase 9032-10-4, Phosphorylase a

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

IT 50-21-5, Lactic acid, biological studies 50-99-7, D-Glucose, biological studies 56-73-5, Glucose 6-phosphate 60-92-4, CAMP 127-17-3, Pyruvic acid, biological studies 138-08-9, Phosphoenolpyruvic acid 79082-92-1, Fructose 2,6-bisphosphate

RL: BPR (Biological process); BSU (Biological study, unclassified); MFM (Metabolic formation); BIOL (Biological study); FORM (Formation, nonpreparative); PROC (Process)

(modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

IT 9001-59-6, Pyruvate kinase

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(modulation of glucagon-induced glucose production by dexfenfluramine in rat hepatocytes in relation to antihyperglycemic activity)

RN 9001-59-6 HCAPLUS

CN Kinase (phosphorylating), pyruvate (9CI) (CA INDEX NAME)

*** STRUCTURE DIAGRAM IS NOT AVAILABLE ***

L63 ANSWER 23 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:550834 HCAPLUS

DN 115:150834

TI Modulation of liver carcinogenesis by dehydroepiandrosterone

AU Mayer, D.; Weber, E.; Bannasch, P.

CS Inst. Exp. Pathol., Dtsch. Krebsforschungszent., Heidelberg, 6900, Germany

SO Biol. Role of Dehydroepiandrosterone (DHEA) (1990), 361-85. Editor(s):

Kalimi, Mohammed Y.; Regelson, William. Publisher: de Gruyter, Berlin, Fed. Rep. Ger.

CODEN: 57DBAU

DT Conference

LA English

AB Administration of dehydroepiandrosterone (DHEA) to rats previously treated with chemical carcinogens modulates the process of hepatocarcinogenesis. The total number of tumors per animal is reduced compared to animals treated with the carcinogen alone, and these tumors exhibit a less malignant phenotype. The tumors are preceded by preneoplastic lesions of an amphophilic or amphophilic/tigroid appearance which do not or only very rarely occur in livers treated with the carcinogen alone. The amphophilic foci are characterized by alterations in the pattern of enzyme activities of carbohydrate metabolism which are less pronounced or even opposite to those observed in glycogen storage foci which usually represent the prestages of hepatocellular tumors in rat livers treated with the carcinogen alone. The modulation of metabolic pathways such as glycolysis, gluconeogenesis, or the hexose monophosphate shunt by DHEA may be related to the mechanism underlying the modulation of hepatocarcinogenesis by the hormone.

CC 2-4 (Mammalian Hormones)

Section cross-reference(s): 1

ST liver carcinogenesis dehydroepiandrosterone

IT Liver, neoplasm

(dehydroepiandrosterone modulation of)

IT 53-43-0, Dehydroepiandrosterone

RL: PROC (Process)

(liver carcinogenesis modulation of)

L63 ANSWER 24 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN

AN 1991:74777 HCAPLUS

DN 114:74777

TI Effects of the anti-AIDS drug dideoxyinosine on hepatic glycolysis in the perfused rat liver: role of intracellular calcium stores

AU Badr, Mostafa Z.

CS Div. Pharmacol., Univ. Missouri, Kansas City, MO, 64108, USA

SO Biochemical Pharmacology (1991), 41(1), 146-8

CODEN: BCPA6; ISSN: 0006-2952

DT Journal
 LA English
 AB Therapeutic concns. of dideoxyinosine (ddI) stimulated glycolysis in the isolated, perfused rat liver. This stimulation occurred in the presence or absence of Ca²⁺ in the perfusate. In contrast, when intracellular Ca²⁺ stores were depleted, the drug caused only slight stimulation of hepatic glycolysis, which was restored to control values upon infusion of Ca²⁺ simultaneously with ddI. These findings suggest that ddI stimulates hepatic carbohydrate metabolism by mobilizing Ca²⁺ from intracellular stores. Stimulation of hepatic glycolysis, in conjunction with the poor nutritional state of AIDS patients, is expected to lead to the depletion of hepatic glycogen stores. Patients receiving ddI should be monitored closely for the earliest signs of hepatotoxic effects.

CC 1-5 (Pharmacology)
 ST liver glycolysis dideoxyinosine calcium; carbohydrate metab liver dideoxyinosine calcium
 IT Glycolysis
 (by liver, dideoxyinosine effect on, calcium role in)
 IT Liver, metabolism
 (glycolysis by, dideoxyinosine effect on, calcium role in)
 IT Carbohydrates and Sugars, biological studies
 RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
 (metabolism of, by liver, dideoxyinosine effect on, calcium role in)
 IT 7440-70-2, Calcium, biological studies
 RL: BIOL (Biological study)
 (glycolysis by liver response to dideoxyinosine modulation by)
 IT 69655-05-6
 RL: BIOL (Biological study)
 (glycolysis by liver response to, calcium role in)

L63 ANSWER 25 OF 25 HCAPLUS COPYRIGHT 2005 ACS on STN
 AN 1981:150760 HCAPLUS
 DN 94:150760
 TI Monocyte-mediated antibody-dependent cytotoxicity. **Modulation** by **glycolysis** and insulin
 AU Kragballe, Knud; Beck-Nielsen, Henning; Pedersen, Oluf; Ellegaard, Joergen; Soerensen, Niels Schwartz
 CS Dep. Med., Univ. Aarhus, Aarhus, Den.
 SO Scandinavian Journal of Haematology (1981), 26(2), 137-44
 CODEN: SJHAAQ; ISSN: 0036-553X
 DT Journal
 LA English
 AB In suspensions of purified human monocytes from 14 healthy persons, the antibody-dependent cell-mediated cytotoxicity (ADCC), the lactate [50-21-5] release, and the glucose [50-99-7] uptake were studied. In nonstimulated monocytes, ADCC correlated with lactate release and glucose uptake. Following addition of insulin [9004-10-8] a dose-related rise in ADCC, lactate release, and glucose uptake was observed. For each of the 3 processes the maximal insulin effect was .apprx.30%. Most of the stimulation was seen within the physiol. concentration range of insulin, and the insulin concentration resulting in 50% of the maximal effect was nearly the same for ADCC, lactate release, and glucose uptake (.apprx.100 pM). The insulin stimulation of ADCC correlated with the stimulation of lactate release and glucose uptake. An inverse correlation between the ADCC of nonstimulated monocytes and the insulin stimulation of ADCC was demonstrated. No relation was found between monocyte maturity and any of

the 3 variables of monocytes function, either with or without insulin. Thus, for normal monocytes, the cytotoxic capacity is closely related to glycolysis.

CC 2-1 (Hormone **Pharmacology**)

Section cross-reference(s): 15

ST monocyte antibody cytotoxicity glycolysis insulin

IT Monocyte

(antibody-dependent cytotoxicity of, **glycolysis** and insulin modulation of)

IT Erythrocyte

(antibody-dependent toxicity to, monocyte in, insulin effect on)

IT **Glycolysis**

(by monocyte, antibody-dependent cytotoxicity modulation by)

IT 9004-10-8, biological studies

RL: BIOL (Biological study)

(antibody-dependent cytotoxicity and glycolysis response to, in monocyte)

IT 50-99-7, biological studies

RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)

(metabolism of, by monocyte, antibody-dependent cytotoxicity in relation to)

IT 50-21-5, biological studies

RL: BIOL (Biological study)

(release of, by monocyte, antibody-dependent cytotoxicity in relation to)

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